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ABSTRACT

Drawing from a variety of sources, this paper reviews information on transfer education in the California community colleges. Section I provides a historical review of events surrounding the transfer function and identifies some of the questions about transfer education that have arisen since 1960. Section II presents and analyzes data concerning transfer activity, focusing on trends in the number of community college students transferring to four-year institutions, how and why the number of transfers has changed, how and why the rate of transfer has changed, differences in transfer activity among individual colleges, results of special efforts, and the numbers of reverse transfers and the reasons these students transfer from four-year to two-year institutions. Section III looks at the representation of racial and ethnic minorities among transfer students and recent changes in these statistics. In section IV, the performance of transfer students at the University of California and California State University campuses is analyzed in terms of grades and persistence. Section V provides a summary of findings, indicating: (1) between 60,000 and 70,000 students transferred from community colleges to four-year colleges in 1983-84; (2) rates of transfer were not being accurately measured; and (3) the number and rate of transfer from individual colleges is related to the college's emphasis on baccalaureate courses, the location of the college, and the proportion of minority students enrolled. Statistical data supporting study findings are appended. (LAL)

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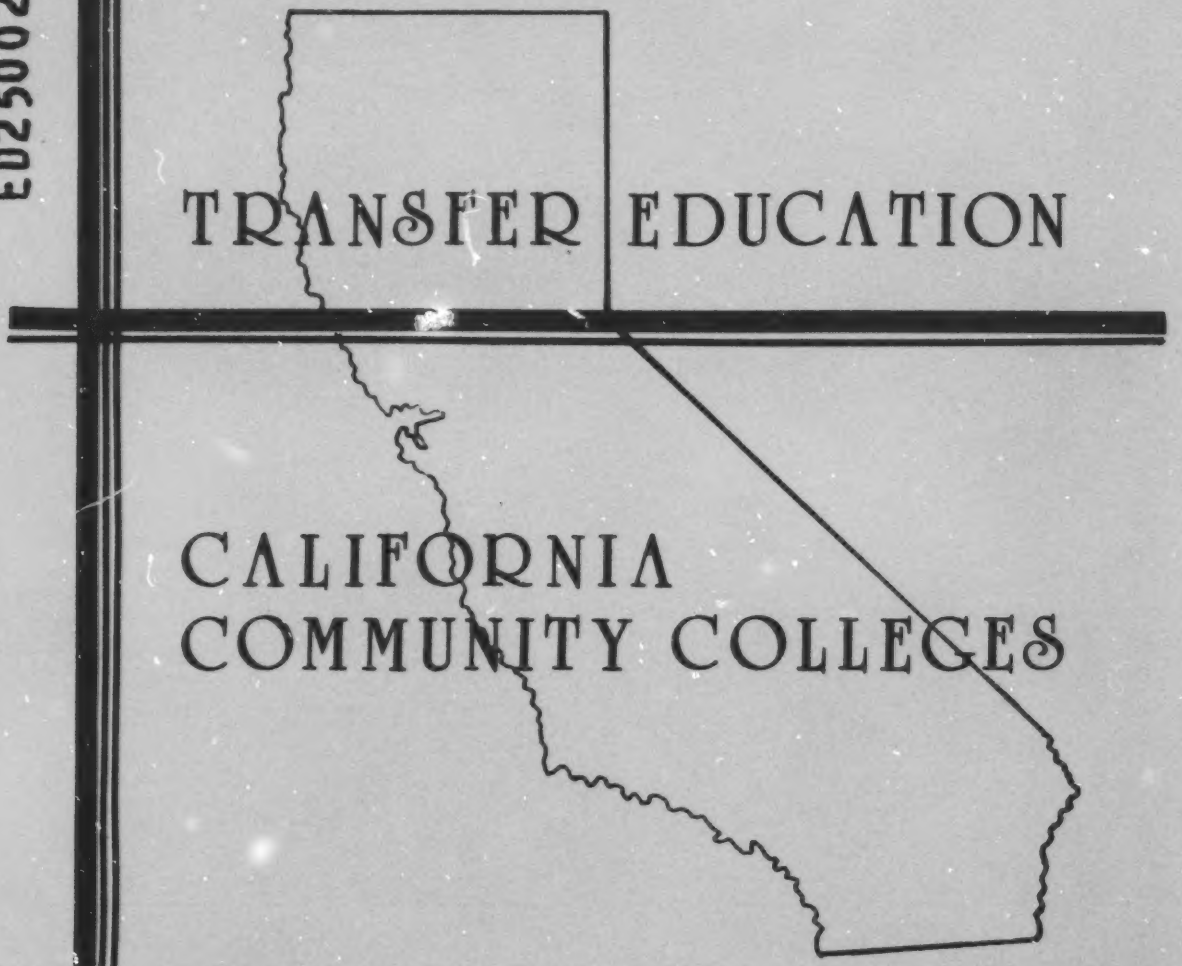
TRANSFER EDUCATION

CALIFORNIA COMMUNITY COLLEGES



CHANCELLOR'S OFFICE

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OCTOBER 1984

TRANSFER EDUCATION

CALIFORNIA
COMMUNITY
COLLEGES

ANALYTICAL STUDIES UNIT
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SACRAMENTO
OCTOBER 1984

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PREFACE

This paper reviews information on transfer education in the California community colleges, a review that must be considered preliminary because there are substantial gaps in our knowledge about this topic. After assessing much of what is known, however, the paper concludes by suggesting several areas where further inquiry is indicated and should prove useful.

Work on this paper was undertaken at the request of the California Community College State Board of Governors. The Board, in January 1984, selected transfer education as one of its priorities for work. Since then, staff have developed a "plan for improving transfer education" and have begun implementing that plan. The Board also wanted to know about the past and present status of community college efforts in transfer education. Consequently, staff formulated a number of research questions and began work.

Obviously, this work could not and did not assess all that is known about the topic. We merely intended to provide one basis for discussions in which the Board of Governors, local community colleges, University (UC), State University (CSU), California Postsecondary Education Commission (CPEC), and others will continue to engage as attempts to improve the community college transfer function proceed.

The paper begins with a background discussion to define the pertinent questions. Detailed analyses are presented in Section II on the number and rates of transfer activity, Section III on the ethnicity of transfer students, and Section IV on the performance of transfer students. This is followed by a summary of major findings in Section V. The basis for most of this work appears in several statistical appendices. Other data are available on request.

Taron Reeves and Channing Yong of the Chancellor's Office Analytical Studies Unit staff helped develop this paper by collecting and analyzing data. Evelyn Stacey provided the clerical support. Staff from UC, CSU, and CPEC provided much of the needed data. Thanks are due also to a number of individuals who reviewed and commented on an earlier draft of this work: Bob Bess, Nancy Conrath, Alice Cox, Carmine Decker, Ron Dyste, Phil Hartley, Dorothy Knoell, Alan MacDougall, Jim Kossler, John Peterson, Julie Slark, and Dale Tillery.

Final responsibility for this paper rests with the Chancellor's Office Analytical Studies Unit. Questions or comments should be directed to us at (916) 445-0102.

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Sacramento
October 1984

SUMMARY

In January, the Board of Governors selected transfer education as one of its priorities for work during 1984. Since that time, staff has prepared a plan for "improving the community college transfer function" and, at the May/June and July Board meetings, described progress on the elements of that plan and reviewed recent activities of the Postsecondary Education Commission's ad hoc committee on community college transfer.

Chancellor Office staff also began a review of the existing information on transfer education, working with University, State University, Postsecondary Education Commission, and community college personnel to identify the pertinent questions and assess the available data. This report is the result of that work.

Drawing from a variety of sources, staff finds that while information on transfer students is incomplete, it is possible to make a number of observations about the work of community colleges in this regard.

- California community colleges transferred between 60,000 and 70,000 students to four-year institutions of postsecondary education in 1983-84.

- Over the past two decades, the number of community college students transferring to UC and CSU has fluctuated because of changes in factors largely outside the colleges' control: numbers of high school graduates and college full-time enrollment, transfer admissions requirements of the four-year institutions, the military draft, students preferences, and student financial aid.

- "Rates" of transfer are not accurately measured at present. However, using younger full-time enrollment as a proxy for the potential pool of transfer students, community college transfer rates to UC and CSU have not changed appreciably in recent years.

  Using first-time, full-time, less-than 25 year-old enrollment as a proxy for the potential pool, community colleges transfer about three of every five potential transfer students within two years after their initial lower division enrollment.

- The number and rate of transfer by students from individual community colleges is related largely to the college's emphasis on baccalaureate courses, its location, and, for CSU transfers, the proportion of minority students enrolled at the college.

- In the Fall 1983, 35,600 students transferred from community colleges to the University (UC) and State University (CSU), while 38,400 students "transferred" from UC and CSU to community colleges. One of every five community college students previously attended a four-year college or university.

- Minority transfer students, underrepresented (relative to community college enrollment) among transfers, increased in 1982 and 1983 because of demographic changes and apparently because of special efforts by certain colleges.

- The performance of community college transfers at UC and CSU has been

consistent over the past decade. Those who were originally four-year eligible out of high school do as well as those (natives) who enroll at UC or CSU as freshmen.

While fewer of those were not originally four-year eligible persist in UC upper division, those who do persist receive grades nearly as as high (close to 3.0 gpa) as those received by natives and by transfers who were originally eligible.

The average differential or drop in a transfer student's gpa from community college to UC is between -0.4 and -0.5 and to CSU is about -0.3.

Several gaps in our knowledge about community college transfer education appear to warrant further inquiry:

- Have special efforts by certain community colleges, in fact, improved the rate of minority transfer? If so, should these efforts be undertaken by other colleges?
- How do those who transfer under special admissions (outside the regular criteria) perform in upper division and what are their needs?
- To what degree does the existence of impacted upper division majors at the four-year institutions present a barrier to community college transfer students? Is the job of obtaining financial aid more or less of an impediment than program entry?
- How much do efforts to improve the identification of and assistance to potential community college transfer students improve the progress and performance of those students?
- Are students satisfied with their preparation (in community college lower division) for transfer? Do they need to make up courses in order to enter their chosen major? Were their skills adaquately developed; were they counseled properly?

I. BACKGROUND

A brief review of past events surrounding the transfer function helps focus the relevant questions.

From their very beginning, in 1911, California community (then junior) colleges have offered a broad curriculum, including both lower division and vocational instruction. While first organized as extensions of high school, these colleges sought to enable students to begin the lower division component of their higher education toward a baccalaureate degree. Throughout the seven-decade evolution of California community colleges, transfer education has been a prominent part of the curriculum.

MASTER PLAN

Much of the current policy regarding transfer education dates back to the 1960 Master Plan. Among the many recommendations of that Plan were a number dealing with differentiation of function among the three public segments of higher education, admissions policies, and the distribution of students.

The Master Plan survey team felt that state colleges would not have sufficient capacity to handle their projected enrollment and concluded that both four and two-year institutions would be strengthened by diverting lower division students from the University and state colleges to the community colleges. This would, the Plan argued, improve access to students at less cost to the taxpayer.

The means recommended (and subsequently adopted) for diverting lower division students was through "persuasive counseling" and through an increase in University and state college freshman admissions policies by admitting from California high school graduates,

- the top 1/8 at the University (UC)
- the top 1/3 at the state colleges

This represented a tightening of practices that existed during the 1950's: UC admitted the top 15% and the state colleges admitted the top 50% of high school graduates at that time.

It was assumed that these actions would divert 50,000 lower division students to the community colleges by 1975 and that, as a result, lower division enrollments would comprise about 40% of undergraduate enrollments in each of the senior segments:

	Master Plan Projected 1975		1975
	Status Quo	Modified	Actual
Community College			
Full-time enrollment	246,350	288,950	371,506
University			
Full-time, lower division enrollment	45,900	28,800	38,268
Lower division/undergraduate ratio	.48	.39	.44
State University and Colleges			
Full-time, lower division enrollment	91,750	67,400	68,368
Lower division/undergraduate ratio	.49	.40	.40

While underestimating the enrollments at community colleges and UC, the Team's projections proved remarkably accurate for the State University and Colleges (CSU), then known as state colleges. Lower division enrollments at CSU in 1975 were very near the Plan's recommended percentage, while the percentage at UC was greater than recommended.

Besides recommending changed freshman admissions policies for the four-year institutions, the Team endorsed the use of a 2.0 lower division grade point average (gpa) for transfer to the state colleges and a 2.4 lower division gpa for transfer (by those originally not eligible from high school) to the University at the junior level. These criteria have since remained in place except for a brief experiment by the University between 1973 and 1976 when the 2.4 gpa was reduced to 2.0.

The Plan also recommended that the segments moniter more closely their admissions practices and strive for greater uniformity in probation and dismissal practices. Finally, it was recommended that both UC and the state colleges accept those not originally eligible after high school if they accumulated 56 units at community college, but also be able to admit by special action (outside regular admissions criteria) 2% of those seeking to transfer from community colleges. This percentage was later doubled.

FOLLOWING THE MASTER PLAN

Those writing about the community (then called junior) colleges during the 1960's noted their responsibility for students who began postsecondary education in a junior college with plans to transfer to a senior institution to earn a bachelors degree. Even then, Medsker and Tillery (1971) estimated that as many as four of five students coming out of California high schools chose that transfer pattern. These authors called for giving "top priority" to transfer students if budgets forced four-year institutions to turn away students. At the same time, Medsker and Tillery noted that guidance, developmental education, and certain types of occupational education were undersupported, while transfer education received the "lion's share" of the community college budget.

While there was debate on whether too much or too little emphasis was being put on transfer education, the numbers entering programs (two of every three community college students, according to Medsker and Tillery) seemed to be adequate rationale for emphasizing the function.

While studies showed that about two-thirds of those entering California junior colleges were in transfer programs, at least half of those students were attending part-time and, therefore, the reality of their stated plans could be questioned. Medsker and Trent (1965) observed that about one-third of those entering junior colleges ultimately did transfer.

On performance, Knoell and Medsker (1964) noted that the gpa of those who transferred and persisted at four-year institutions in ten states dropped by .22 of a grade point, from 2.56 in lower division at junior college to 2.34 in upper division at the four-year institution.

INCREASING OPPORTUNITIES

At the end of the 1960's, the California Legislature established programs at both community colleges and CSU for those students with educational, social, and economic disadvantages. UC began a similar program, supported largely from its own resources.

These programs clearly stimulated interest in postsecondary education on the part of minority and other individuals who traditionally did not attend college. Not so clear, however, is the impact these programs have had on the number of these students who were interested in beginning their work at a community college then transferring to complete their undergraduate education.

The Legislature noted in 1970 that it wasn't certain that all qualified applicants could be accommodated in then-existing facilities at UC and CSU and declared its intent that admissions be subject to the following priorities for the state's residents:

(1) continuing undergraduate students in good standing
(2) transferring and reentering students with two years of baccalaureate work
(3) entering freshmen and sophomores

all to be followed by nonresident applicants. This appeared to reaffirm the public's commitment to the transfer function.

REVIEWS OF THE MASTER PLAN

In 1965, the Legislature created a Joint Committee on the Master Plan to review the development of higher education under the Plan. The Committee released its final report in 1969, proposing that eligibility criteria for entering freshmen be eased to admit 20% of high school graduates to UC and 40% of high school graduates to CSU. While these recommendatins were not adopted, other recommendations dealing with expanded educational opportunities and special admissions (outside regular criteria) were to be influential (see below).

In 1970, the Coordinating Council for Higher Education appointed a Special Committee to reexamine the Master Plan. The 1972 report of this committee largely reaffirmed the Master Plan's proposals, including those about the community colleges' transfer responsibility.

Another Joint Legislative Committee was created in 1970. After two years of study by independent consultants, the Committee recommended a fourth segment of higher education for non-traditional programs (subsequently rejected) and replacing the Coordinating Council with the Postsecondary Education Commission (CPEC), a recommendation that was implemented. The Committee also recommended goals for postsecondary education that included equal and universal access along with lifelong learning opportunities and reaffirmed (a) then-existing admissions standards and (b) the differentiation of functions among the segments, including transfer education.

Besides creating CPEC, a series of legislative resolutions were adopted as a result of the Joint Committee report. Among these resolutions, ACR 150 (1973) embraced the Master Plan's recommended admissions criteria.

Also important to the transfer function was ACR 151 (1974) which called for overcoming ethnic, economic, and sexual underrepresentation among student enrollments in all three segments.

RENEWED INTEREST IN THE TRANSFER FUNCTION

Interest in the transfer function was renewed in 1978 when CPEC began to publish a series of annual reports on the number and character of students who transfer to UC and CSU from community colleges.

Adding to this interest was the release, in 1979, of results from Sheldon's Statewide Longitudinal Study (SLS). This work showed that many students who professed to be transfers were not taking course patterns normally thought of as pre-transfer. Sheldon found also that one-third of those who did transfer took mostly occupational courses in lower division work at community colleges.

In 1979, the Legislature asked CPEC for a plan to estimate the number and character of those who "would be" eligible for transfer from community colleges and the persistence and performance of those who do transfer (compared to those who enter UC and CSU as freshmen). This plan, issued in 1980, called upon the Chancellor's Office of the community colleges to contribute information.

Before the Chancellor's Office had responded, a 1980 report by the UC Task Force on Retention and Transfer (commonly known as the "Kissler Report") questioned the UC performance of community college transfer students and the viability of transfer programs in many community colleges. This latter question of the viability of the transfer function was echoed in a 1981 white paper by CPEC staff. In addition, CPEC's 1981 annual report on transfer students noted there had been a several-year decrease after 1972 at UC and after 1975 at CSU in the number of community college students transferring to those institutions.

When it did respond, the Chancellor's Office did so in two ways: a statistical report in 1981 on Transfer Students and, in 1982, a report on Identifying and Assisting Transfer Students. The former study discussed the difficulties in identifying the "potential pool" of transfer students and reviewed the reasons for the decline in number of transfers to UC and CSU during the latter half of the 1970's. The latter report noted that few colleges had systematic procedures for identifying, following, and assisting potential students.

GENERAL CRITIQUES

The questions raised in California were raised in more general national writings about the transfer function.

Work by Cohen and Brawer at UCLA in the late 1970's suggested that community colleges throughout the country were having trouble serving transfer students because of the increases in nontraditional clientele, occupational education, and community education. Cohen (1979) had observed that the community college transfer function was in jeopardy because four-year institutions were lowering their admissions requirements to maintain enrollments in the face of a declining college-going pool, because of the perceived community college emphasis on occupational and remedial education, and because of the increased availability of financial aid at four-year institutions.

Richardson and Leslie (1980) also expressed concern about the community colleges' ability to serve an increasingly diverse clientele and rising expectations, including the transfer function, in the face of a continuing decline in funding. These trends continue and, these authors argue, aspirations must be reconciled with available resources.

Brenneman and Nelson (1981) concluded from their work that attending a community college, rather than a four-year institution, reduced the probability that a student would ultimately obtain a bachelor's degree. This and other factors led them to recommend that community colleges enroll fewer transfer students and concentrate on career and community education.

Knoell (1983) reviewed recent trends and concluded that "as a result of changing conditions the (community college) transfer function may be in jeopardy."

The trends appear contradictory, however. On the one hand, more rigid admissions requirements, financial aid that is harder to obtain and of less value (than several years ago), and higher tuition and fees in the four-year institutions all result in relatively more enrollment in community colleges by students whose ultimate aim is a bachelor's degree. On the other hand, the number of potential BA students is declining now that most baby-boom individuals are beyond the primary college-going age. As a result, four-year institutions increasingly compete for students directly out of high school. This factor and fiscal constraints, together with commitments to other functions such as remediation and occupational and community education, may make it difficult for community colleges to maintain their transfer function.

THE ETHNIC GAP

Community colleges enroll 40% of all California high school graduates, but 80% of all minority high school graduates. The percentage of minorities who transfer from community colleges to UC and CSU , 28%, is substantially below their proportion (39%) of full-time enrollment in community colleges.

In a 1983 survey of minority access to higher education, the Mexican American Legal Defense and Educational Fund (MALDEF) and Public Advocates noted that minorities were overly represented in community colleges and underrepresented at UC and CSU. In addition, the MALDEF survey observed that the transfer rates for community colleges with heavy minority enrollments were quite low and that the transfer rates for minorities in general were below those of their white counterparts.

These conditions, MALDEF argued, are in violation of the Master Plan and the California Education Code. MALDEF would solve this problem by

(1) requiring, as a condition of accreditation, that better information on transfer (course requirements, etc.) be provided to students
(2) mandating colleges to identify and counsel potential transfer students
(3) establishing transfer centers and uniform course numbering

RECENT ACTIVITIES

There have been a number of recent attempts by individual community colleges to improve the transfer function through special programs and through more effective articulation with the four-year institutions.

The CPEC Fall 1983 update on transfer students notes that after nearly a decade of decreases, there has been a modest increase in the number of community college students transferring to UC and CSU. Gains in the number of minority students who are transferring also are noted in that report. Whether these gains are the result of changing conditions outside the colleges' control (demography, high school graduates, etc.) or due to explicit efforts is a question that needs to be addressed.

In January 1984, the Board of Governors selected transfer education as one of its priorities for work during 1984. Since that time, staff have prepared a plan for "improving the community college transfer function" and reviewed the progress of work on that plan and of recent activities of an ad hoc committee created by the Postsecondary Education Commission to work on community college transfer issues.

QUESTIONS

From these discussions and other recent work, several major questions are focused and are addressed in this report. In many cases, we find that the data are not adequate for a definitive answer and that further questions are suggested.

(1) How and why has the number and rate of community college transfers changed over time? Can a reliable "rate" of transfer be measured? Are there substantial differences among individual colleges? Have special efforts produced results? What are the numbers and characteristics of reverse transfers; i.e., those who transfer from four-year institutions to community colleges?

(2) What is the extent of underrepresentation of minorities among transfer students? Is that changing? If so, how and why?

(3) How do transfer students perform in upper division? How do their grades and rates of persistence compare to those students who enrolled at UC and CSU as freshmen? Are there major differences in the performance of those transfer students who were eligible to attend UC and CSU as freshmen as opposed to those who were not four-year eligible coming out of high school? Special admits vs. regular admits?

II. TRANSFER ACTIVITY

How many community college students transfer to four-year institutions? How and why has the number of transfers changed over time?

Can a reliable "rate" of transfer be measured? If so, how and why has it changed over time?

Are there substantial differences in transfer activity among individual colleges? Have special efforts produced results?

How many, and for what reasons do, students transfer in "reverse" from four-year institutions to community colleges?

NUMBERS

While precise figures are not available, it is estimated that between 60,000 and 70,000 community college (CC) students transferred to various four-year institutions during the 1983-84 academic year:

5,300	to the University of California (UC)
45,400	to the California State University (CSU)
>5,200	to the independent colleges and universities (ICU)
?	to out-of-state institutions
>55,900	total

(For the derivation of these estimates, see statistical note in Appendix A.)

Despite the incomplete character of these data, several observations are possible:

- the number of CC transfers to independent institutions is at least equal to those transferring to UC
- nine times as many CC students transfer to CSU as transfer to UC

From a slightly different perspective,

- half of those students transferring to 54 independent colleges and universities in California are from the community colleges (see Appendix A, Table 1)

Community college transfers are the largest source of CSU undergraduate students:

From	Percent of Undergraduates (Fall 1983)
Community colleges	45.3%
High Schools	36.7
Out-of-state	5.9
Other CSU campuses	5.8
UC	2.3
Foreign	2.1
In-state private	2.0

(see Appendix A, Table 2)

In the Fall 1983, a total of 35,600 students transferred from community colleges to UC and CSU, marking a second year of modest increase in this number after five years of decreases since the peak year of 1975. (See Chart 1.) Increases in community college transfers to the independent colleges also appear to have occurred during these same two years (see Table 1 in Appendix A).

Factors

An analysis of trends over the past two decades reveals that the number of CC students transferring to UC and CSU is a function primarily of changes in:

- high school graduates and full-time community college enrollment
- defense policies: the military draft
- admissions requirements
- financial aid
- student preferences

These changing conditions are largely beyond the control of community colleges. The possibility that special efforts by individual colleges also have contributed to this modest upswing in the numbers of students transferring is explored below.

The change in the number of high school graduates is due to the state's changing demography and, of course, the persistence of high school students. The number of graduates, in turn, affects the number of students who enroll full-time at community colleges. (While full-time enrollment is not - for reasons discussed below - an accurate measure of potential transfer students, it is the best proxy measure available for the time period examined here.) For the past ten years around 40% of California high school graduates enrolled at a community college (six of ten enroll at any postsecondary institution in the state).

The two-decade correlation between high school graduates and full-time community college enrollment is r=+.889. (A correlation of r= + or - 1.000 means that two measures change in the same magnitude; a correlation of 0.000 means that two measures are unrelated.) Thus, an increase (decrease) in high school graduates results in an increase (decrease) in full-time community college enrollment (see Chart 2). This pattern was interrupted just two times during the past two decades:

- the period from 1973 to 1977 when large numbers of veterans enrolled full-time at community colleges, and
- in 1980, when full-time enrollment appears to have increased largely due to a change in college funding policies.

CHART 1

COMMUNITY COLLEGE TRANSFERS TO
THE UNIVERSITY AND STATE UNIVERSITY

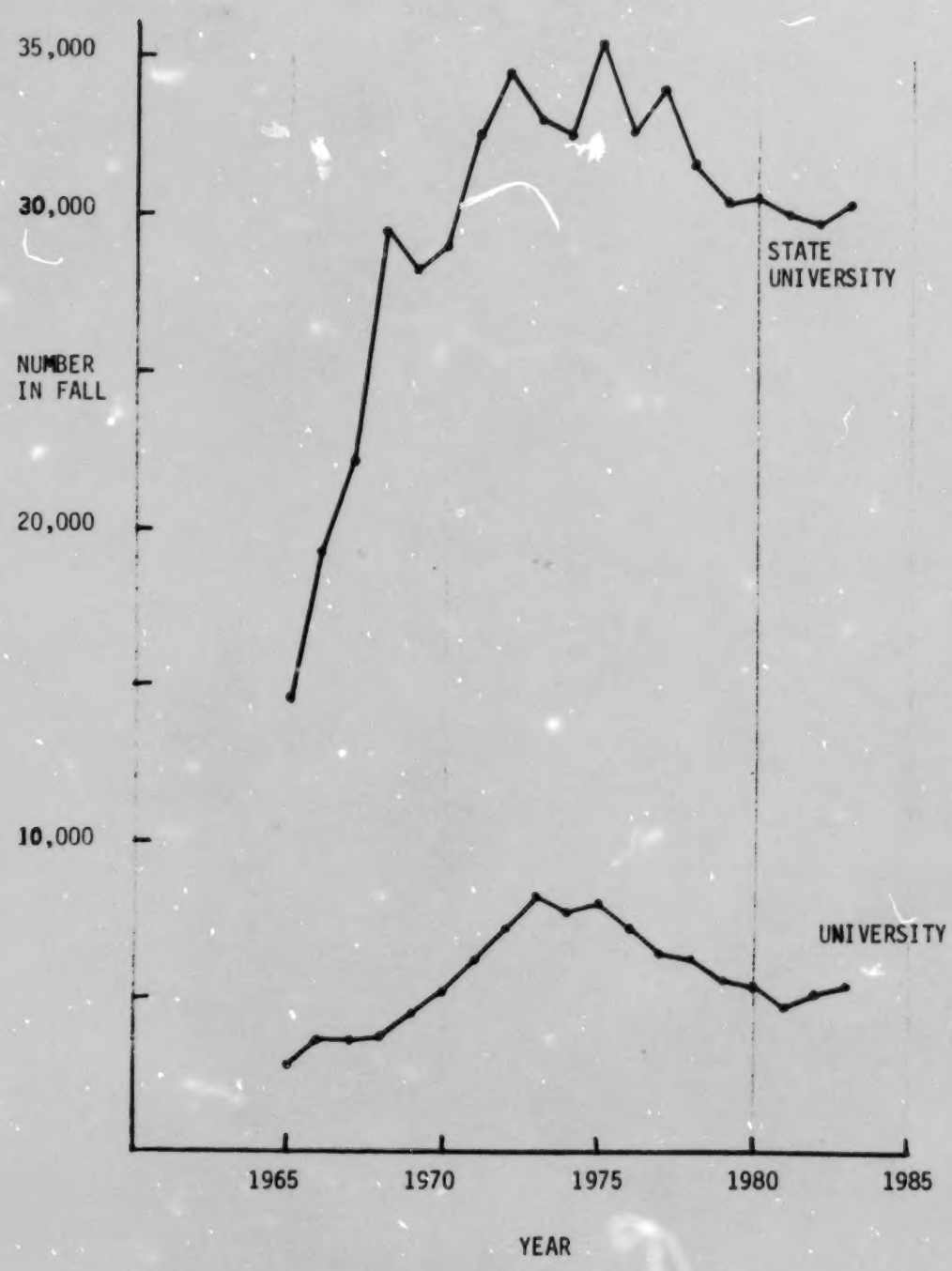
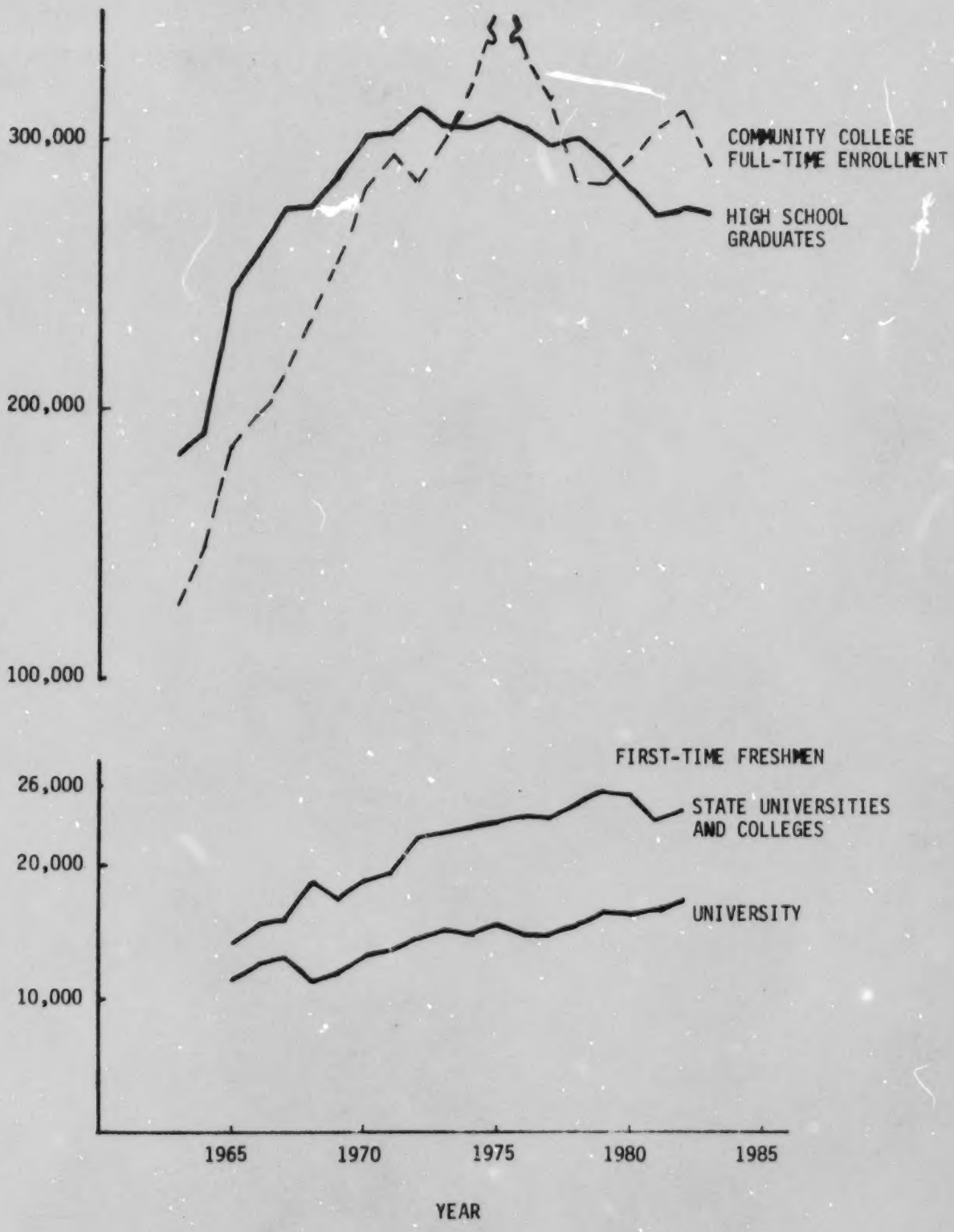


CHART 2


300,000
200,000
100,000
COMMUNITY COLLEGE
FULL-TIME ENROLLMENT
HIGH SCHOOL
GRADUATES
FIRST-TIME FRESHMEN
26,000
20,000
10,000
STATE UNIVERSITIES
AND COLLEGES
UNIVERSITY
1965
1970
1975
1980
1985
YEAR

The peaks and valleys in numbers of transfers from community colleges to UC and CSU generally follow, by two years, trends in high school graduates and full-time community college enrollment. The draft appears to have had an impact upon those high school graduates enrolling full time at community colleges and subsequently transferring to UC and CSU in the late 1960's and early 1970's. Experimentally-lower admissions requirements at UC coincided with the peak number of transfers to that institution between 1973 and 1976.

While data are not available, it appears that financial aid programs may have had a dampening impact on transfer activity during the latter half of the 1970's. Federal Basic Educational Opportunity Grants (BEOG) and other aid during this period made UC and CSU less expensive, relative to community colleges, and enabled those segments to increase their first-time freshmen enrollments moderately in the face of declining numbers of high school graduates. At the same time, full-time enrollments in community colleges were declining.

Early this decade, rising prices together with a decline in financial aid grants produced a reverse result: the four-year institutions became more expensive, relative to community colleges. Partly as a result of this trend, there has been a modest gain in the number of students who begin their baccalaureate work in community colleges then transfer to a four-year institution.

Increases in full-time enrollment and potential transfer activity also can reflect changing student preferences. These have changed dramatically over the past decade, shifting from the life sciences, social sciences and humanities to engineering, business, computer science, and more career-oriented disciplines. (These trends can be seen in Tables 3 and 4 of Appendix A.) The extent to which this has had a dampening effect on the number of potential transfer students enrolling in community college, is uncertain .

Changing student preferences for enrolling directly as first-time freshmen at UC and CSU also impact the level of transfer activity. After being relatively constant from 1965 to 1972, the proportion of high school graduates enrolling directly at UC and CSU began to increase while, at the same time, the number of high school gradutates began to decrease. As more students went directly to UC and CSU, there would be fewer who later transferred.

The impact of these changes in college-going rates can be seen by looking at the "market shares" of high school graduates attending each segment:

	1982 First-Time Freshmen	
	Actual 1982	Using 1974 Rates
Community Colleges	113,815	118,367
CSU	23,933	21,775
UC	17,019	14,610

(see Appendix A, Tables 5 and 6)

There are nearly 5,000 fewer potential transfer students in community colleges than would have been the case if the college-going rates of a decade ago still held.

Model

The relative importance of factors affecting the numbers of students who transfer can be assessed by use of a statistical regression model that includes the following variables:

Factors	Variables
Number of transfers	Each fall to the University (UCTR), to the State University (CSTR), and in total (TTR)
Potential pool of transfer students	Full-time community college enrollment, two years prior (FTCCE)
Student preferences	First-time freshman enrollment at the University (FTUCF), State University (FTCSF) and in total (FTTF)
	Number of unemployed in California's labor force (UNE)
	Rate of unemployed in California's labor force (UNER)
Public policy	Experimental transfer admissions program at the University (UCAP)
	The military draft (DRFT)
Budget expenditures	Price-adjusted community college expenditures per student (EADA)

The regresssion form selected is:

$$\text{UCTR or CSTR} = b_0 + b_1\,\text{FTCCE} + b_2\,\text{FTF} + b_3\,\text{UNE} + b_4\,\text{UCAP} + b_5\,\text{DRFT} + b_6\,\text{EADA} + e$$

where, b_0 = the regression constant

$b_1, \ldots b_6$ = the regression coefficients which measure the relationship of each independent variable to the dependent variable (in this case, number of transfers)

e = an error term which enables us to calculate how much of the variation in transfer numbers is explained by the model; i.e., calculate the R (coefficient of determination) and F-Ratio (to test the significance of the model in total)

This regression model enables one to examine the impact on transfer numbers of, for example, admissions policy, while holding constant the impact of other variables (in the model), such as the draft or full-time student enrollment.

For instance, a simple correlation of r=-.564 between the number of State University transfers (CSTR) and the military draft (DRFT) suggests that transfers were lowest when the draft was operative. However, the number of potential transfers (FTCCE) also was lowest when the draft was operative (FTCCE and DRFT correlate significantly and negatively: r=-.806). Therefore, when the transfer "pool" (FTCCE) and other factors are held constant in the

multiple regression, we find (see below) that the draft did contribute significantly to a higher number of transfers from community colleges to the State University than would have been the case had the draft not been operative.

Nineteen years of data, for the period 1963 to 1983, are analyzed. Unemployment (UNE) is used as a rough proxy for program preferences. In periods of rising unemployment, enrollments increase and, some argue, students tend toward transfer education because of a tightened job market. Price-adjusted expenditures (EADA) are included as a proxy of the community colleges' ability to fund (a) instruction, particularly small-second year classes, and (b) small group support services such as counseling; both efforts are necessary to effective transfer programs. Both the military draft (DRFT) and experimental University admissions (UCAP) are specified as "dummy" variables: they either were or weren't in effect. As noted above, the impact of financial aid can't be tested due to lack of data.

Results

The models explain about 90% of the variation in numbers of transfers (see R values) over the time period examined and are significant predictors (see values of F-ratio).

(Significance throughout this report refers to statistical significance at, unless otherwise noted, the 5% level. This means roughly that the odds that our results are due purely due to chance are less than 5 in 100.)

Specific results show that the total number of transfers (TTR) has been affected in a significant way by the level of full-time community college enrollment, the experimental admissions program at UC, and the draft:

Summary of Regression Results:

	UCTR	CSTR	TTR
R^2 (overall model fit)	.914	.847	.896
F-Ratio (significance of fit)	17.8*	9.2*	14.4*
t-statistics (significance of regression coefficients) for			
FTCCE	3.4*	3.1*	3.4*
FTUCF	1.0	-	-
FTCSF	-	2.1*	-
FTTF	-	-	2.6*
UNE	1.8	0.6	1.3
UCAP	4.2*	2.6*	3.9*
DRFT	2.7*	2.4*	3.3*
EADA	1.6	0.5	1.7
Durban-Watson statistic	1.13	2.43	2.48

*significant at the "5% level."

(Data are displayed in Appendix B. Details of the statistical results are available on request.)

(The t-statistics measure the accuracy of the model's prediction of the estimated relationship between each independent variable and the dependent variable (UCTR, CSTR, and TTR above); specifically, that this relationship is not zero. Technically, the t-statistic is the estimated regression coefficient for that independent variable divided by the standard error of estimate for that coefficient.)

The impact of unemployment and real expenditures on the number of transfers is not significant (see t-statistics). This seems due in part to the way these variables are specified, however. They do not adequately measure student preferences and college resource capability.

Surprisingly, the number of total first-time freshmen (FTF) in the four-year institutions is positively (and significantly) related to total transfers. This is the reverse of the expected relationship: that is, as more students go directly to the senior segments from high school, there are fewer students to later transfer from community colleges to these same institutions. The unexpected opposite result is due in part to the fact that FTF increased throughout the period, while the number of transfers fluctuated.

The experimental program for Increased Accommodation of Transfer Students (UCAP) between 1973 and 1977 temporarily lowered the minimum grade-point average for transfer from 2.4 to 2.0 and substantially increased the numbers of students transferring from community colleges to UC. The number of full-time community college enrollments and draft (which ended in 1972) had lesser, though still significant effects on the numbers of UC transfers.

The large decline in UC transfers toward the end of the 1970's may also be due to the fact that UC made relatively few changes in its curriculum despite dramatic changes in the character of student demand during that time.

The number of students transferring to CSU also peaked in 1975, but exhibited a much smaller (16%) decline through 1980 than did UC. This is because CSU did not change their transfer admissions requirements and because CSU more readily adapted their curriculum to the changing program preferences of students wanting to transfer. Nine of 19 major disciplines grew during the past decade, headed by business, computer and information science, health professions, and engineering. By 1981, CSU granted nearly two-thirds of its degrees in the growth majors, while UC awarded only one-third of its degrees in the same disciplines (see Appendix A).

The Durban-Watson (DW) statistic tests for serial correlation among successive error (e) terms. The error is the difference between actual transfer values and the values predicted by the regression model. If the errors are serially correlated: the best equation form may not be linear (as specified here), the dependent variable (transfer numbers) may not be measured correctly, or important independent variables that affect transfer numbers are omitted. DW values above are inconclusive for the University case (UCTR) and suggest that errors or disturbances are random in the cases of the State University (CSTR) and the total of the two (TTR).

Despite these results, the analysis lacks, among other factors, a variable for changes in State University admissions practices. Actions to limit first-time freshmen in 1965 and 1966 are thought to have contributed to the substantial increase in numbers of transfers from community colleges to CSU in the late 1960's.

Another change of note, not in this analysis, was the adoption by UC (starting in the Fall 1980) of a new admissions option for transfer students who were not originally eligible from high school. While this made it easier to transfer, it is not clear how many students were affected.

Alternative forms of the regression model, which replace full-time enrollment

with high school graduates and replace unemployment with unemployment rates, make no appreciable difference in the analysis. Replacing full-time enrollment with total credit enrollment (full- and part-time) substantially reduces the predictive power of the model.

RATES

Defining a Rate

The rate of transfer can be defined as the number of potential transfer students who do, in fact, transfer. This simple definition is difficult to apply, however, since the numbers of students who transfer are generally known (see above), but the number of potential transfer students in community colleges is not generally known.

The "rate" of transfer also depends upon the context of policy interest. One may want to know how well colleges do with (a) those students who are interested in transferring, (b) those who are interested and capable, or (c) those who are capable, but not necessarily interested. In each case, the "pool" of potential transfer students contains a different group of students. Complicating this is the fact that students continually reassess and change their objectives. Indeed, one of the community college's important functions is to ensure that such changes in student objectives are productive.

Identifying and assisting potential transfer students is a major operational challenge for community colleges. Accurate identification of the potential pool also is necessary to any effort to assess the community colleges' performance of the transfer function. Short of conducting an expensive longitudinal study, proxy measures must be used to estimate the aggregate pool of potential transfer students.

A potential transfer student can be thought of as one who has expressed the intent to transfer and is pursuing a course pattern that would support that intent. Students may say they intend to transfer, but don't take a course pattern that will permit them to do so. Even full-time enrollment is not a certain criteria. The SLS found that one-third of a cohort of transfer students had been enrolled part-time at a community college prior to transferring. Of the same transfer cohort, SLS also found that one-third (not the same one-third) had indicated some goal other than transfer while enrolled in community college. Unexpectedly, the SLS showed that nearly one-half of those students who said they intended to transfer took a course pattern considered to be vocational in orientation.

Among students who indicate their educational goals, the intent to transfer is directly related to academic load and inversely related to age. Students who intend to transfer are likely to be younger and carry a heavier academic load than those who do not intend to transfer:

Load	Age	Ratio who say they intend to transfer
12 or more units	17 to 19	.57
	20 to 24	.50
	25 and over	.37

6 to 11 units	17 to 19	.46
	20 to 24	.41
	25 and over	.31
Less than 6, but more than 0 units	17 to 19	.31
	20 to 24	.27
	25 and over	.17

(Source: Chancellor's Office Student File, Fall 1983)

Both the SLS (1980) and the recent Field Research Corporation survey (1984) found that the proportion of full-time students intending to transfer is two to three times that of part-time students.

If we use an estimate that 40,600 students transferred to UC, CSU, and private in-state institutions in the Fall 1983, different concepts of a pool of potential transfer students in, say, the Fall 1981 could suggest the following different transfer rates:

base enrollment measure		transfer rate
headcount	1,431,524	.03
full-time	303,685	.13
full-time, 18 to 24 year-old	234,148	.17
full-time, less than 20 year-old	130,972	.31
full-time, intend to transfer	162,760	.25
taking 6 or more units, intend to transfer	304,400	.13
first-time, full-time, intend to transfer	57,081	.71
first-time, full-time, less-than 25 yrs.old	68,558	.59

(Source: Appendix B and Chancellor' Office Student File, Fall 1981)

Community colleges transferred about 3 percent of their total enrollment. Matched against a likely potential pool - those taking 6 or more units and intending to transfer - the rate becomes about one in five! Even this rate is understated becsause the "pool" includes several cohorts of students: those in their first, second, third, and even additional years of community college or lower division work. Comparing one transfer cohort to several community college cohorts is not valid.

Ideally, the analysis would follow the same students, as a group that is sometimes referred to as a "longitudinal panel," noting the number of potential transfer students who did, in fact, transfer. Since this kind of information is not available, the best approximation is those first-time, full-time students who say they intend to transfer. This basis results in a transfer rate of just over 70% (see above).

Another good approximation of the potential transfer "pool" (for which there are more complete data) is a cohort of first-time, full-time students who are less than 25 years-old. While this cohort excludes some part-time and older students who are seriously considering transfer, it (this cohort) includes some occupational students as well. These discrepancies tend to cancel each other, although it appears that the number of first-time, full-time, less-than 25 year-olds does exceed the number of first-time, full-time students who intend to transfer. Using a two-year lag also is a compromise. Most students who do transfer do so after one, two, or three years at a community college.

Use of the first-time, full-time, less-than 25 year-old cohort as the potential pool results in a community college transfer rate that is about one-half. That is, community college transfers to UC and CSU in the Fall 1982 were 43% of the

cohort pool that entered community college in the Fall 1980. (See Appendix D.) The comparable rate based on Fall 1983 transfers and Fall 1981 basis was 52% for UC and CSU or 59% when in-state private institutions are included (see above).

At present, there is simply no way of accurately measuring a transfer "rate." Consequently, in the following work we resort to use of the best proxy measures for which data are available.

Approximating Trends in Aggregate Transfer Rates

Assessing changes in the rate of transfer over time is particularly difficult because student preferences are continually changing and there are no consistent data on intent. Analyzing an approximate community college transfer rate over time is limited to the use of full-time students or some other proxy as the base measure. Many observers will argue that even among the full-time enrollment, there is an increasing proportion interested in occupational training, rather than transfer and general education.

While the questions and students were different, three recent surveys suggest that

- about one-third of all students intend to transfer
- there are more students with occupational objectives than with transfer objectives:

	distribution of students		
intent	SLS Fall 1978 (on entry)	Chancellor Office File Fall 1983 (all)	Field Corporation Spring 1984 (all)
Transfer	.34	.34	.35
Occupational	.38	.33	.49
Self-improvement	.28	-	-
Other	-	-	.14
Other/Unknown	-	.33	-

While not directly comparable, these distributions contrast markedly with the data derived by Medsker and Tillery (1971) from NCES statistics to show that California community college enrollments during 1968 were split: 2/3 in transfer programs and 1/3 in occupational programs.

A better indication of the relative shift in student preferences from transfer and general education to occupational education is revealed in data on the distribution of credit hours taken by California community college students:

discipline	1963	1982
Life science	.04	.04
Math, Physics and Engineering	.16	.13
Social Sciences	.22	.16
Humanities	.25	.21
Physical and Health education	.05	.05
Occupational education	.28	.38
Other	-	.03

(Source: Chancellor's Office Course Activity File, Fall 1982; CCHE, Community College Finance,1965)

Since younger students are more likely to be enrolled in order to transfer, the aging of community college enrollments also supports the notion of a shift in the program preferences of the average student away from transfer and general education:

age	1972	1982
less than 25 years-old	.62	.47
25 to 29	.15	.17
30 or older	.23	.36

Despite the measurement problems, we can employ the same regression models as above to look at trends in an approximate transfer rate (TRR) for the two decades beginning 1963 and ending 1983. Lacking a better measure of the potential pool, the transfer rate is defined as:

number of transfers
divided by
full-time community college enrollment two years prior

Transfer rates don't correlate with numbers of transfers (r=-.226). More transfers are not the result of a higher rate of transfer. The "peak" rate occurred at the end of the 1960's, while the peak number of transfers was reported in 1975, seven years later. Transfer rates for UC and CSU have moved in a roughly parallel fashion (r=+.579), however.

The regression models explain about nine-tenths of the change in transfer rates over this time period and are significant predictors. Variations in the combined rate of transfer (TTRR) of community college students to UC and CSU appear to have been a function largely of the draft and changed admissions policies at UC:

Summary of Regression Results:

	CSTRR	UCTRR	TTRR
R^2	.859	.860	.865
F-Ratio	10.2*	10.3*	10.6*
t-statistics for			
FTCCE	-1.1	0.6	-0.9
FTCSF	0.4	0.9	1.0
FTUCF	-	0.9	-
FTTF	-	-	1.0
UNER	-0.3	1.0	0.3
UCAP	1.5	2.5*	2.2*
DRFT	1.5	1.8	1.9
EADA	0.4	1.3	1.0
DW statistic	2.26	1.03	2.11

*Significant at the 5% level.
(See data in Appendix B)

Variations in the UC transfer rate (UCTRR) have been impacted primarily by the experimental transfer admissions policy that made upper division access easier during the period from 1973 to 1976. UC transfer rates since that time have been virtually constant. An earlier "peak" in the UC rate during the late 1960's appears to have been due largely to the military draft.

Transfer rates (CSTRR) from community colleges to CSU peaked at the end of the 1960's then declined to a low point in the late 1970's. None of the independent variables in the model are significant. Therefore, despite a

Durban-Watson statistic that is not significant, there may be important other factors, such as modified admission practices or community college transfer "productivity," that should be included in the model. As noted earlier, actions taken in 1965 and 1966 to limit first-time freshmen enrollment at San Jose and San Francisco campuses contributed to high transfer rates in the late 1960's. Another contributing factor was the military draft.

The effect of attempting to sharpen the analysis of transfer rates for age changes can be seen by relating numbers of transfers to different age groups of full-time students. (See Appendix C.)

While such transfer rates for CSU have been relatively stable, use of a younger comparison group results in a slight increase in rate over the past decade, rather than slight decrease (when all, including older, full-timers are used as the base).

A similar adjustment (for age) in trends of UC transfer rates results in a drop of one-fourth (using a younger base group), rather than one-third (when using all full-timers) in the last decade. Notably, however, the UC transfer rate has been virtually unchanged since 1977, the year that the experimental admissions program was discontinued.

INTERCOLLEGE DIFFERENCES

Data from the University and State University on transfer students enable us to analyze those factors which appear to relate to differences in transfer activity among individual community colleges. In addition, it is also possible to analyze changes in the transfer activity of individual community colleges for two recent periods, a time of decrease in transfers (1977 to 1981) and a time of increase in transfers (1981 to 1983).

Model

Factors thought to have a substantial impact on the number and rate of transfers from individual community colleges are measured by the following variables in the regression model:

Factors	Variables
Number of transfers	From individual community colleges in the Fall 1982 to the University (UT) and the State University (ST)
Rate of transfer	Number of transfers in fall 1982 divided by the number of first-time, full-time less-than 25 year-old students in the Fall 1980 going to University (UTFR) and to the State University (STFR)
Student characteristics	Percent minority enrollment at the community college (MN)
	Community college gpa for those transferring to the University (UCG) and to

	the State University (SCG)
Character of community college curriculum	Percent of student contact hours taught in baccaleaureate-eligible courses at the community college (PRG)
Cost to student of information and transportation	Distance from community college to the University (ULC) and State University (SLC)
Community college budget	College's current expense of education per student (CE)
Potential pool of transfer students	First-time, full-time, less than 25 year-old enrollment in 1980 (CFFT)

Numbers

The number of transfers to UC and CSU from individual colleges is a function primarily of both the potential transfer pool and college program balance. As expected, greater numbers of students transfer from those community colleges where the pool is larger. Also, greater number of transfers are reported from those colleges where there is a larger proportion of instructional activity in baccalaureate-eligible courses:

Summary of Regression Results:

	UT	ST
R^2	.509	.689
F-Ratio	12.1*	25.8*
n	76	76
t-statistics (for regression coefficients) of:		
CFFT	5.5*	10.4*
MN	-0.1	-0.9
PRG	3.2*	0.9
CE	-2.1*	0.8
SLC	1.9	0.6
ULC	-2.0*	-1.7

*Significant at the 5% level.
(See data in Appendix D.)

The college reporting the largest number of State University transfers in the Fall 1982, Orange Coast with 915, had a 1980 first-time, full-time, less-than 25 year-old enrollment of 2,028. Diablo Valley College, with the largest number of University transfers in Fall 1982, 229, reported a 1980 younger, first-time, full-time enrollment of 1,766 and 71% of its instructional activity in BA/BS-eligible courses.

Neither the proportion of minority students in a community college nor college expenditures per student correlate significantly or positively on the number of students who transfer. Finally, the accessibility of a UC campus is significantly related to the number of UC transfers. College location is not a factor in the case of CSU transfers.

Rates

Examination of the transfer "rates" from individual community colleges requires more precise data than are currently available (see above discussion of this topic). However, to look at likely causes of variation among the colleges, we can again resort to a rough proxy measure of the potential transfer pool: the number of students under 25 years-of-age who are enrolled for the first-time and on a full-time basis.

Transfer rates from different community colleges vary substantially more in the case of UC than in the case of CSU. Review of the rates (1982 fall transfers divided by college full-time enrollment in 1981) provides the following results:

	Transfer Rates To	
	UC	CSU
Mean (of the colleges)	6.1%	36.8%
Standard Deviation	4.7	13.0
Coefficient of Variation	0.77	0.35
High	23.0%	76.7%
Low	0.1	6.9

(See Appendix D)

(These figures will differ from rates derived from aggregate totals elsewhere in this report because 6 community colleges are not included.)

The apparent causes of differences in the transfer rates from individual colleges depend upon the four-year segment for which college transfers are analyzed. Community college location is important in the case of UC transfers, while the characteristics of college enrollment are important in the case of CSU transfer rates. The character of community college curriculum is important in the case of transfers to both segments:

Summary of Regression Results:

	UTR	STR
R^2	.288	.169
F-ratio	3.9*	2.1*
n	76	76
t-statistics (for regression coefficients)		
MN	0.2	-2.7*
PRG	3.5*	0.2
CE	-2.9*	-0.5
CG	0.1	-1.7
SLC	1.4	-1.1
ULC	-2.1*	-1.1
CFFT	-0.7	-2.4*

*Significant at the 5% level.
(See data in Appendix D)

Transfer rates to UC are highest from those community colleges where
- o the proportion of instruction in baccalaureate-eligible courses is the highest
- o UC campuses are located nearby

The significant, but unexpected negative correlation of a community college's per student expenditure (CE) and its transfer rate to UC is explained by the

fact that greater numbers transfer from larger colleges where expenditures are lowest due to economies of scale (r=-.209).

In the State University case, by contrast, the percent of minority students in the community college is negatively correlated with the college's transfer rate. The rate also is negatively correlated on enrollment, meaning that the rate is higher in the case of colleges with a smaller potential pool. A college's curriculum balance is not a factor in its CSU transfer rate. The community college expenditure level is not a factor in individual community college transfer rates to CSU, even when size (which correlates significantly with spending: r=-.203) is held constant. Nor are CSU transfer rates significantly affected by the proximity of the community college to a CSU (or UC) campus.

Recent Changes

Individual community college transfer activity also can be examined for two recent periods of decrease between 1977 and 1981 and increase between 1981 and 1983. Aside from the usual independent (explanatory) variables in the regression model, we add (for the period 1977 to 1981) two variables describing special efforts taking place in 1979 to identify potential transfer students (EFID) and to work with potential transfer students (EFWK). For the more recent period of increase, we use a variable on special efforts to improve the transfer function (EFC) undertaken after 1980.

- 1977 to 1981, when total fall transfers to UC and CSU declined from 40,393 to 34,804 (a drop of 14%), but 28 of 100 colleges reported an increase in transfers to at least one of the segments

During this period, those colleges experiencing the largest decline in full-time enrollments (DFT) exhibited the largest decline in transfers to UC and CSU (the change in transfers is noted by DUT and DST. Community colleges near CSU campuses experienced the largest drop in CSU transfers and the least drop in UC transfers:

Summary of Regression Results:

	DUT	DST
R^2	.168	.285
F-Ratio	1.96	3.88*
n	75	75
t-statistics for		
DFT	2.6*	2.9*
MN	0.9	-1.3
CE	0.8	0.4
ULC	1.3	-0.9
SLC	-1.9	2.3*
EFID	0.4	0.9
EFWK	-0.1	0.8

*Significant at the 5% level
(Data in Appendix D)

Special efforts undertaken by individual colleges in the late 1970's to identify and work with potential transfer students appear to have had little or no impact in stemming the decrease in numbers of transfers.

- 1981 to 1982: a time of modest increase in total transfers from 34,804 to 35,579 (2%) when, however, 60 colleges were still experiencing declining numbers of transfers to UC or CSU

By contrast, special efforts (EFC) appear to have had a major impact on increasing the number of UC transfers (DUTR) from individual community colleges during 1981 to 1983. Also contributing to large increases in UC transfers were the college's: increase in full time enrollment (DIFT), emphasis on baccalaureate work, and location (near UC campuses and far from CSU campuses). Full-time enrollment increases were most important for increases in CSU transfer from individual colleges:

Summary of Regression Results:

	DUTR	DSTR
R^2	.188	.173
F-Ratio	3.05*	2.75*
n	85	85
t-statistics for		
DIFT	1.3	2.9*
MN	-1.6	-2.1*
CE	-0.6	-0.1
ULC	-2.1*	-0.2
SLC	3.2*	0.1
EFC	2.2*	0.6

*Significant at the 5% level
(Data in Appendix D)

Special efforts by individual colleges during this same period contributed significantly to increasing the numbers of minority students who transferred to UC and to CSU.

REVERSE TRANSFERS

The flow of transfer students is not solely from the community colleges to the four-year institutions. A significant number of students transfer to the community colleges from the four-year colleges. In the Fall 1983, approximately 96,000 students in the community colleges had already completed at least a baccalaureate degree. In addition, a large number of community college students had previously attended a four-year institution without taking a degree. These two groups of students, in effect "reverse transfers," represent approximately twenty percent of community college enrollment.

In the Fall 1979, over 10,000 students transferred from UC and over 27,000 transferred from CSU to community colleges. While the number from UC is decreasing, the number from CSU is increasing:

	Fall 1979	Fall 1983	Percent Change
transfers from			
UC to community colleges	10,159	9,717	-4.4%
CSU to community colleges	27,314	28,671	+5.0

(Source: Chancellor's Office, Student File)

These students vary widely in the level of postsecondary work they have

completed. A significant number have not yet completed a four-year degree; approximatelyt one-fourth are still at the freshman level:

distribution of transfer students from by student level:	UC	CSU
Freshman	24.9%	26.7
Sophomore	8.1	9.3
60+ Units	10.0	12.8
Associate Degree	5.1	10.3
Baccalaureate+	51.8	40.9

(Source: Chancellor's Office, Student File)

An in-depth study of transfer students at the Los Rios district has been conducted under the sponsorship of the California Association of Community Colleges. The study sample included 10,196 of 45,132 students registered during the Spring 1982.

Study data indicate that 19.6% of the district's enrollment had previously attended a four-year institution. About one-third of these "reverse transfers" held a baccalaureate degree.

Significant differences were found between those who had and those who had not earned a four-year degree. The degree-holder's primary reason for attending a community college is related to an occupational goal. The others attend for a wider variety of reasons related to financial resources, preparation to re-enter a four-year institution, and also for occupational needs. The four-year graduates are more likely to work (82%) than are the non-degree holders (75%). The degree holders also are more often self-supporting (72% versus 49%).

The proportion of four-year graduates in the Los Rios district (7.6%) is close to the statewide average (7.8%). If the percentage of reverse transfers without degrees statewide is similar, over 200,000 community college students have had four-year experience.

The SLS collected data on first-time students at a sample of community colleges and found that 13.4% had last attended a four-year institution. This figure is necessarily lower than the percentage found in the Los Rios study since SLS asked only about the most recent institution attended, not if a student had ever attended a four-year institution.

The SLS also found that of those community college students who had last attended a four-year institution:

21% were enrolled in order to transfer back to a four-year school
35% for occupational purposes, and
44% for special interests.

III. ETHNICITY OF TRANSFER STUDENTS

What is the extent of underrepresentation of racial and ethnic minorities among transfer students? Is that changing? If so, how and why?

REPRESENTATION

Aside from Asians, disproportionately low numbers (relative to community college enrollment) transfer to UC and CSU. This is confirmed by looking at the ethnic distributions of full-time enrollment at community colleges (a rough proxy of the potential pool of transfer students) and the distribution of subsequent transfer students:

	ethnic distributions of 1981 community college enrollment		1983 college transfers	
	Total	Full-time	to UC	to CSU
American Indian	1.6%	1.6%	0.9%	0.9%
Asian and Pacific Islander	6.7	8.9	12.0	9.3
Black	8.7	10.6	4.2	6.6
Filipino	1.6	1.7	1.0	1.5
Hispanic	12.5	13.4	9.0	9.5
Non-Hispanic White	66.8	60.8	72.9	72.0
Other	2.6	3.0	--	--

(See Tables 1 and 2 in Appendix E)

Asians and whites are overrepresented among transfers to both segments whereas Blacks and Hispanics are underrepresented at CSU and even more so at UC. Among minority transfers, Asians are represented more at UC than at CSU. By contrast, Black and Hispanic students constitute a relatively larger proportion of CSU, than of UC, transfers.

The pattern of ethnic distribution among transfer students contrasts with that of students entering college as first-time freshmen. Minority students constitute the same overall percentage of UC and CSU first-time freshmen enrollments as they do of public high school graduates. However, Asians are significantly overrepresented and Blacks and Hispanics are underrepresented in the beginning classes of the four year segments:

	1981 % high school grads	1982 % first-time enrollment at		
		UC	CSU	comm.coll.
Asian	5%	17%	10%	4%
Other Minority	26	15	22	31
Non-Hispanic White	69	68	68	65

(See Table 3 in Appendix E).

Unlike UC and CSU, first-time freshmen enrollment in 1982 at community colleges was made up of proportionately more minority students (35%) than was the prior year's high school graduating class (31%).

In general, minority students who enroll full-time in community college have transfer intentions similar to those of non-Hispanic whites. (See Table 4 in

Appendix E.) By contrast, significantly more minority students attending part-time intend to transfer than is the case for white students. (See Table 5 in Appendix E.) An exception to these observations are younger Hispanic students who indicate that transfer is a goal less often than does any other ethnic group.

These figures are consistent with preliminary findings on a sample of full- and part-time community collete students surveyed by the Field Research Corporation in Spring 1984:

	% intending to transfer
American Indian	31%
Asian	33
Black	35
Filipino	35
Hispanic	31
Non-Hispanic White	32

RECENT CHANGES

Between 1982 and 1983, community college transfers to UC and CSU increased by 1.8%. This increase was attributable to an increase in minority transfers since the number of Non-Hispanic whites declined:

	change in community college transfers: #	%
Asian	+347	+11.2%
Other Minority	+425	+ 6.6
Non-Hispanic White	-154	- 0.6

(See Table 1 in Appendix F)

It appears that the recent gains in transfer of minority students are primarily due to special efforts on the part of certain community colleges, the four-year institutions to which they send transfer students, or both. Using a proxy measure for recent effort of a special nature (EFC) to identify and assist transfer students:

special efforts = 1, other = 0,

the regression model from Section II is used to review those factors that might have contributed to the change in numbers of Blacks and Hispanics transferring to

- UC between 1981 and 1983 (DMUT)
- CSU between 1982 and 1983 (DMST)

Thirty-one community colleges were identified as having been involved in such special efforts recently and the regression results show that those efforts had a significant impact on increasing the transfer of Blacks and Hispanics to both UC and CSU:

Summary of Regression Results

		DMUT	DMST
R^2		.117	.199
F-Ratio		1.74	3.26*
n		85	85
t-statistics (for regression coefficients) of:			
	DIFT	-0.2	2.2*
	MN	-0.7	-1.7
	CE	-0.6	-0.8
	ULC	-2.0*	-1.2
	SLC	1.8	1.4
	EFC	2.5*	3.1*

*Significant at the "5% level"
(See data in Appendix D)

Gains in minority transfers to UC were largest also in those community colleges near UC campuses (as measured by ULC). An increase in full-time enrollment (DIFT) also appears to have been a significant factor for those community colleges reporting increased numbers of minority transfers to CSU.

While the special effort variable (EFC) was measured in a subjective way, results are indicative. Further analysis, particularly of a case-study nature is warranted.

IV. PERFORMANCE OF TRANSFER STUDENTS

How do community college transfer students perform in upper division? How do the grades and persistence rates of those transferring from community colleges to UC and CSU compare with those who transfer from other institutions?

Are there differences in the upper division performance of college transfer students who were eligible to attend UC and CSU as freshmen (but did not) as opposed to those transfer students who were not eligible to attend UC and CSU coming out of high school?

How do the grades and persistence rates of community college transfer students compare with "natives," i.e., those who enrolled at UC and CSU as freshmen?

Do those transfer students who enroll under special admissions criteria perform as well as those who meet the regular criteria for transfer?

For purposes of this paper, performance will be defined in terms of the gpa earned at the four-year institution and continued enrollment (persistence) or graduation from the four-year institution. Since these data are not currently available for independent or out-of-state colleges, we focus on the experience of community college transfers to the public four-year segments in California.

UNIVERSITY TRANSFERS

Grades

Lower and upper division grades of community college transfers to UC have been relatively consistent for nearly a decade. During this period, community college transfer students experienced a drop of nearly half-a-grade point in their first year at UC:

	1975	1978	1982
Originally Eligible (from high school)			
community college gpa	3.32	3.34	
UC gpa	2.88	2.76	
Differential	-0.44	-0.48	
Not Originally Eligible			
community college gpa	3.01	3.23	
UC gpa	2.62	2.76	
Differential	-0.39	-0.47	
All Students			
community college gpa			3.24
UC gpa			2.77
Differential			-0.46

(See Tables 1 and 2 in Appendix F)

The performance of those community college transfers who were not originally eligible to attend UC (from high school) is not substantially different than that of transfer students who were originally eligible.

In 1982, nine percent of the 1982 community college transfers had not met their Subject A requirements, prior to transfer, and 15% were admitted under special action, outside the regular admissions criteria.

A comparison of students regularly admitted at the junior level in 1982 shows grade patterns similar to those above:

	lower division gpa	upper division gpa 82-83	differential
Natives	3.03	2.96	-0.07
Transfers from 4-year colleges	3.11	2.69	-0.42
Transfers from community colleges			
Eligible from high school	3.32	2.92	-0.40
Not eligible from high school	3.18	2.67	-0.51

(See Appendix F, Table 2)

An earlier study for the period 1973 to 1975, at UC Davis, showed that community college transfers entered Davis with nearly the same grades as transfers from CSU and other UC campuses, but experienced a slightly greater grade differential during their first year:

three-year averages for:	n	lower division gpa	upper division gpa	differential
community college transfers	766	3.14	2.70	-0.44
CSU transfers	87	3.05	2.82	-0.23
transfers from other campuses	82	3.03	3.02	-0.01

(See Table 3 in Appendix F)

Similar patterns are found in the recent performance of community college transfers at the UC Berkeley campus. Their work compares to that of transfers from other institutions in virtually the same way as found earlier at UC Davis:

	1982				
	% inelig from h.s.	% EOPS	lower division gpa	upper division gpa	differential
community college	77%	10%	3.30	2.88	-0.45
CSU	63	9	3.32	3.06	-0.26
private institutions	52	0	3.32	3.08	-0.24
other UC campuses	9	3	3.16	3.03	-0.13

(See Table 4 in Appendix F)

Transfer data for Berkeley in 1980 and 1981 show the same comparative pattern. The performance of community college transfers took place despite

the fact that they are more often admitted under special action and are more often ineligible out of high school than are transfers from other institutions.

Three-fourths of community college transfers at Berkeley were ineligible out of high school. In 1982, 20% of those transfers admitted as sophomores were under special action and 2% of junior transfers were similarly admitted. The percent of those admitted to Berkeley as transfers under special actions has increased slightly since 1980.

Relying once again on the general regression model, we find that 1982 community college transfers to UC who recorded the highest first year gpa (UG) were typically from colleges where:

- the community college full-time enrollment (CFT) and, therefore, the numbers transferring were large
- the proportion of minority students (MN) was low
- students received high lower division grades (UCG)

Neither college program balance, expenditure level, nor location had any significant impact:

Summary of Regression Results for UG:	
R^2	.240
F-Ratio	3.29*
n	80
t-statistics for	
CFT	2.0*
MN	-2.7*
PRG	-1.1
CE	-1.4
UCG	2.3*
SLC	-1.7
ULC	0.9

*Significant at the 5% level.
(See data in Appendix D)

Examination of the first-year differential between UC and community college gpa's and the same seven independent variables revealed no significant relationships.

The average differential for all students:

UC gpa	3.27
lower division gpa	2.70
differential	-0.57

is consistent with that found in other studies.

Differences among community college transfer students were found in a study of students who were juniors at five campuses of UC in 1975. While disputed on a number of grounds, results of this study showed similar differences (as above) in the performance of those who were, as opposed to those who weren't, UC-eligible out of high school.

Compared to the "originally-ineligible," those who were originally UC-eligible from high school:

- had higher lower division grades at community colleges
- experienced a similar gpa drop upon transfer
- graduated in greater numbers within three years:

	lower division gpa	first year UC gpa	diff'l	second year UC gpa	percent graduated in 3 yrs
community college transfers					
not originally eligible	3.02	2.61	-0.41	2.97	56%
originally eligible	3.28	2.90	-0.38	3.12	71
native UC freshmen	3.03	3.10	+0.07	3.20	74

(See Table 5 in Appendix F)

By the second year in upper division, community college transfers had improved their grades to a level that may not have been significantly different than that of the native students. (Unfortunately, the number of students on which this study was based is not known, so tests of statistical differences are not possible.) In fact, after an initial period of adjustment, those not originally UC-eligible raised their second-year grades by +0.4 gpa, back to about the same level they earned in lower division at community college.

The performance of transfers who were originally UC-eligible (from high school) is not substantially different from that of native students. There does appear to have been a major difference in the upper division persistence to graduation of those transfer students who were not originally UC-eligible, however.

Persistence

Three-fifths of those community college students transferring to southern UC campuses in 1975 had graduated three years later. A slightly higher proportion (two-thirds) of community college transfers who were regularly admitted at UC Davis during the same period graduated after three years in upper division (see Table 6 in Appendix F).

While not directly comparable to transfer student rates, the five year graduation rate of those entering UC Davis as regularly-admitted freshmen was 60% (see Table 7 in Appendix F).

An earlier systemwide study of the graduation rates of community college transfers who entered UC as juniors in 1972, 1973, 1974, and 1975 again showed that two-thirds of these students had graduated within three years. Results for individual UC campuses ranged from 46% at the San Diego campus to 67% at Berkeley and Davis (see Table 8 in Appendix F).

Graduation rates of community college transfers were only slightly below that of transfers from other institutions (see Table 9 in Appendix F). The rates of those who had transferred in 1975 do appear to have been slightly lower than those who transferred in 1972, however.

Of those transfer students leaving UC prior to graduation, during the mid-1970's, only about one-third left in academic difficulty (generally a cumulative gpa of less than 2.0), while the remaining two-thirds left in good standing (see Table 10 in Appendix F).

Recent data on persistence for UC Berkeley between 1980 and 1982 show that:

- four-fifths of community college transfer students persist into the second year of upper division
- the persistence rates of community college transfers are not substantially different than those of transfers to Berkeley from CSU, other UC campuses, or private institutions (see Table 11 in Appendix F)

STATE UNIVERSITY TRANSFERS

Grades

The first-year grades of those community college students who transferred to CSU in the Fall 1982 were essentially the same as the CSU natives (those who started as freshmen) and those transferring from other institutions:

	CSU gpa	lower division gpa	differential
community college transfers	2.71	2.98	-0.27
all transfer students	2.70		
CSU natives	2.66		

(See Appendix D and Table 12 in Appendix F)

The differential of -0.27 of community college transfer students at CSU is substantially less than that encountered by UC transfers, but the upper division gpa is similar.

Analysis of the grades and grade differentials of transfer students from individual colleges reveals that transfer students earning the highest grades (SG) at CSU are typically from those community colleges where the proportion of minorities (MN) is the lowest. Further, transfer students experiencing the smallest gpa differentials (SGD) between lower and upper division were from colleges where the proportions of white students were the largest and where the average lower division gpa was the highest:

Summary of Regression Results:

	SG	SGD
R^2	.361	.583
F-Ratio	5.90*	14.58*
n	80	80
t-statistics for		
CFT	0.1	-0.4
MN	-4.9*	-4.8*
PRG	-0.7	-0.6
CE	1.1	1.4
SCG	0.2	-8.5*
SLC	-1.0	-0.5
ULC	1.0	0.9

*Significant at the 5% level
(See details in Appendix D)

Persistence

Approximately seven of ten community college students who transferred to CSU in the Fall 1982 continued in the Fall 1983. A further breakdown shows that those who were admitted under regular transfer criteria persisted to a greater extent than did those specially admitted:

	% persisting into 2nd year
Regularly admitted	73%
Specially admitted	67

Reviewing individual community college data once again, we find that persistence rates (SPR) were highest among those students who transferred from community colleges reporting the highest proportion of work in baccalaureate-eligible courses:

Summary of Regression Results for SPR:	
R^2	.302
F-Ratio	4.68*
n	83
t-statistics for	
CFT	0.3
MN	-1.4
PRG	3.4*
CE	-1.4
SCG	-0.6
SLC	0.0
ULC	1.5

*Significant at the 5% level.
(Data in Appendix D)

An earlier study of community college transfers and CSU natives (both groups having graduated from high school in 1973 and enrolled at CSU in the Fall 1975) showed that by the Spring 1980:

68% of the native students
61% of the community college transfers

had earned a degree (see Table 13 in Appendix F).

A further breakdown shows that those transfer students who were regularly admitted did substantially better than those admitted under special criteria:

	1975 CSU transfer students regularly admitted	specially admitted
by 1978:		
still enrolled	23%	18%
earned degree	41	25
by 1980:		
still enrolled	10%	7%
earned degree	53	33

(See Tables 14 and 15 in Appendix F)

V. SUMMARY OF FINDINGS

NUMBER AND RATE OF TRANSFERS

How many community college students transfer to four-year institutions?

For 1983-84, it is estimated that 51,000 community college students transferred to the University (UC) and the State University (CSU). The Association of Independent Colleges reports that about 5,000 community college students transferred to 56 private four-year institutions in California. Other studies suggest the number transferring to the private institutions in California may be higher. The total number of transfers, including those going to out-of-state institutions, was likely between 60,000 and 70,000.

Even though the data are incomplete, it is evident that:

- at least as many community college students transfer to in-state private institutions as transfer to UC
- nine times more community college students transfer to CSU than transfer to UC

From another perspective, it is estimated that

- half of all those students transferring to in-state private institutions are from community colleges

Further, CSU reports that

- nearly half of CSU undergraduate students have had community college experience
- the number of community college transfers exceeds those who enrolled at CSU directly from high school or from other institutions.

How and why has the number of community college transfers changed over time?

During the past two decades, the number of Fall transfers to UC and CSU rose to a peak of 43,359 in 1975, declined to 34,804 in 1981, and has since increased modestly (see Chart 1). Similar "time series" data are not available for the number of transfers to in-state private or out-of-state institutions.

Changes in the number of community college transfers to UC and CSU are the result primarily of changes in five factors:

- full-time community college enrollment
  About two-thirds of those enrolled full-time in the community colleges indicate they intend to transfer. Thus, while it is not a precise measure, changes in number of full-time students do correspond closely to changes in the number who transfer, say, two years later. Full-time enrollment, in turn, is closely related to the number of high school graduates.

- transfer admissions requirements
  Priority admissions for transfers at certain CSU campuses in the late 1960's and experimentally-lower transfer requirements at UC between 1973 and 1976 both had a substantial impact on the numbers of community college students transferring to those institutions.

- the military draft
  This policy independently contributed to a greater level of transfer activity than was the case after its termination in 1972.

- student preferences
  While the data are incomplete, it appears that more community college students are pursuing occupational, as opposed to transfer or general, education than was the case one or two decades ago. It isn't possible to assess how this trend has affected the numbers of community college transfers, however, since the data are incomplete.

  The fact that community college transfers to CSU are now nine times the number going to UC (whereas the ratio ten years-ago was five to one) reflects the greater shift by CSU toward business and other career-related programs that have become more popular with students in recent years. CSU also became less expensive, relative to UC, over that same period.

  A greater proportion of high school graduates (15.4%) are entering UC and CSU directly from high school today than was the case ten years ago (12.7%).

- financial aid
  While the data aren't conclusive, the increased financial aid for students in the late 1970's made UC and CSU both less expensive (relative to community colleges) and likely contributed some to the decrease in transfer activity since more students went directly from high school to those institutions. Likewise, inflation and decreased availability of financial aid at the beginning of the 1980's may have contributed to the recent upswing in numbers of transfers.

Program impaction may be having some effect on the numbers of transfers. In 1983, eligible transfer students were redirected from two or three CSU campuses, from UC Berkeley (one-fourth of all 1983 transfer applicants were redirected), and from three other UC campuses in engineering.

Can a reliable "rate" of transfer be measured and, if so, how and why has it changed over time?

It is not possible at present to determine a transfer "rate" because the pool of potential transfer students has not been accurately identified. Assessing a

student's stated intent and course pattern isn't even conclusive. Using these two criteria, one recent study showed that one-third of a sample of students who had transferred would have been categorized as having had occupational objectives while enrolled at community college.

It is apparent, however, that younger students enrolled full-time at community college are three times more likely to intend to transfer than are older students enrolled part-time.

Obviously, comparing the number who transfer with total community college enrollment (a "rate" of four percent) is not valid. The best proxy of a potential "transfer pool" for which data are available appears to be first-time, full-time, less-than 25 year-old enrollment. Using this measure,

- nearly half of the potential pool transfers to UC or CSU two years after entering lower division at a community college

Including other four-year institutions,

- community colleges transfer about three of every five potential transfer students within two years of intitial enrollment

Resorting to full-time enrollment as a proxy for the potential pool of transfer students, we find that over the past two decades the community college transfer "rate" (those who transferred divided by the pool) to UC and CSU:

- did not correlate with the number of transfers; that is, the rate was not necessarily higher when there were higher numbers of transfer students (this is consistent with the findings about those factors that affect the number of transfers)...the "rate" peaked in 1969 while the peak number was not recorded until six years later, in 1975

- has changed largely because of the effects of
  - o the military draft
  - o transfer admissions policies

Using younger, full-time enrollment as another, more accurate, proxy for the potential transfer pool, we find that transfer "rates" to CSU and UC have been essentially unchanged:

- CSU for the past decade

- UC since 1977, the end of the experimental transfer admissions program

<u>Are there substantial differences in transfer activity among individual community colleges?</u>

As expected, the differences in numbers of students transferring from individual colleges to UC and CSU is due primarily to differences in the size of the potential transfer pools in those colleges. Higher transfer numbers are observed also in those colleges where larger proportions of instructional activity takes place in baccalaureate-eligible courses.

Community colleges, near UC campuses, tend to send more transfer students to UC. College location does not appear to be a factor in the number that transfer to CSU.

Between 1977 and 1981, annual fall transfers to UC and CSU declined from 40,393 to 34,804 (a drop of 14%), but 28 of 100 colleges reported an increase in their transfers to at least one of the four-year segments.

During this period, those colleges experiencing the largest decline in full-time enrollments exhibited the largest decline in transfers to UC and CSU. Large decreases in UC transfers were reported also by colleges with low emphasis on baccalaureate work. Community colleges near CSU campuses experienced the largest drop in CSU transfers.

Special efforts undertaken by individual colleges, during this time, to identify and work with potential transfer students appear to have had little or no impact in stemming the decrease in numbers of transfers.

The period 1981 to 1983 was a time of modest increase in fall transfers from 34,804 to 35,579 (up 2%) when, however, 60 of 100 colleges experienced declining numbers of transfers.

Special efforts by 31 community colleges appear to have had a major impact on increasing the number of UC transfers from those colleges during this period. Also contributing to large increases in UC transfers were the community colleges': increase in full-time enrollment, emphasis on baccaleaureate work, and location (near UC campuses and far from CSU campuses). Full-time enrollment increases were the most significant cause of increases in CSU transfers from individual colleges.

Special efforts by individual colleges during this period contributed significantly to increasing the numbers of minority students who transferred to UC and CSU.

Using first-time, full-time, less-than 25 year-old students as a proxy for the potential transfer pool in each college, we find that transfer "rates" from individual community colleges to UC vary substantially more than those to CSU.

Transfer rates to UC are highest from those community colleges where:

- the proportion of instructional activity in baccaleaureate-eligible classes is highest
- University campuses are located nearby

The proportion of baccalaureate-eligible activity in a college's instructional program reflects, in large part, the character of the college's community and students. The influence of a nearby UC campus underscores its attraction when readily accessible.

Transfer rates to CSU are highest from those community colleges where:

- the proportion of minority students is lowest
- the potential transfer pool is smallest; i.e., programs are small

Have special efforts in individual colleges produced results?

As noted above, special efforts by individual colleges during the late 1970's seem to have had little impact.

By contrast, special work by nearly one-third of the community colleges since 1980 to improve transfer programs appears to have had a significant impact on increasing the numbers of students transferring to UC and CSU, particularly the numbers of minority students.

What are the numbers, characteristics, and motives of "reverse" transfers; i.e., those students who transfer from four-year institutions to community colleges?

One of every five community college students has previously attended a four-year institution.

Each year, more students "reverse" transfer from UC to community colleges than transfer from community college to UC. While transfers from UC are decreasing, transfers from CSU are increasing:

	Fall 1979	Fall 1983
transfer from community college to UC	5,562	5,305
UC to community colleges	10,159	9,717
transfer from community college to CSU	30,428	30,274
CSU to community colleges	27,314	28,671

Less than one-third of the "reverse" transfers (from UC and CSU to community colleges) plan to transfer back to a four-year institution. The remainder, most of whom have bachelors degrees, are pursuing vocational or special interests in their community college work.

ETHNICITY OF TRANSFER STUDENTS

What is the extent of underrepresentation of racial and ethnic minorities among transfer students? Is that changing? If so, how and why?

Among institutions of postsecondary education in California, community colleges enroll the largest proportion of minority students. Minorities constitute:

- 31% of California high school graduates
- 32 UC first-time freshmen
- 32 CSU first-time freshmen
- 35 community college first-time freshmen

Current data on student objectives show that, except for younger Hispanics, minority students who are enrolled full-time in community colleges intend to transfer as often as do Non-Hispanic Whites. And more of the minority students attending community college part-time intend to transfer than is the case for Whites.

Despite similar interests in transfer, minorities represent a smaller proportion of those who transfer to UC and CSU than they (minorities) represent

of community college enrollment:

	1981 community college enrollment		1983 transfers to UC and CSU
	total	full-time	
Minority	33.4%	39.3%	27.9%
Non-Hispanic White	66.6	60.7	72.1

Among the minority students who transfer, Asians are overrepresented (in relation to their proportion of community college enrollment) and American Indians, Blacks, and Hispanics are underrepresented.

Between 1982 and 1983, minority transfers to UC and CSU increased by 772, while Non-Hispanic White transfers decreased by 154. This appears due both to changes in the characteristics of community colleges students and to special efforts on the part of individual colleges.

PERFORMANCE OF TRANSFER STUDENTS

How do community college transfer students perform in upper division?

For this discussion, performance is described in terms of grades and rates of persistence.

While fragmented, studies show that 70% to 80% of community college transfers complete one year of work at UC and CSU. Three of five transfer students graduate within three years after beginning their work at UC and within five years at CSU.

A mid 1970's study showed that one-third of those community college transfers who withdrew from UC upper division prior to graduation did so because of academic difficulties.

Compared to their counterparts at CSU, transfers to UC bring higher community college grades, but experience a larger drop and compile about the same grade-point-average (gpa) in the their first year. The performance of community college transfers to UC and CSU has been relatively consistent during the past decade, the period for which evidence is available.

How do the grades and persistence rates of community college transfer students compare with those who enrolled at UC and CSU as freshmen ("native" students)?

The performance of those community college transfers who were originally UC-eligible is not substantially different than that of UC native students. Compared with native students, the originally-eligible transfer students compile a similar gpa and appear to graduate at the same rate as do the native students. Fewer of those community college transfer students who were not originally UC-eligible persist to graduation. Those that do, however, perform at nearly the same level (about a 3.0 gpa) as do natives and transfers who were originally-eligible.

Community college transfers to CSU in 1982 compiled essentially the same gpa as did CSU native students. And, a study of CSU graduation rates in the late

1970's showed that three-fifths of community college transfer students had graduated within five years after transfer, a rate just slightly below that of CSU natives (68% of whom graduated after five years of upper division work).

Are there differences in the performance of those transfer students who were eligible to attend UC or CSU as freshmen as opposed to those who were not eligible coming out of high school?

Data for community college transfers to UC show that those not originally UC-eligible from high school bring slightly lower community college gpa's when transferring than do those who were originally UC-eligible. The first-year drop in gpa (between -0.4 and -0.5 gpa) is comparable for both groups, however. While the evidence is not conclusive, one study showed that both groups of students then raised their second-year gpa's to a level equal to that they earned at community college; a level that was not substantially different than that of UC natives. The originally-eligible group did, however, graduate in apparently greater numbers than those transfer students who were not originally UC-eligible.

No similar data are available for community college transfers to CSU that would enable a comparison of those who were and were not originally CSU-eligible.

How do the grades and persistence rates of those transferring from community colleges to UC and CSU compare with those who transfer from other institutions?

Community college transfers who are regularly admitted to UC:

- experience a slightly greater gpa differential
- compile slightly higher gpa's

than do those who transfer to UC from other four-year colleges.

At CSU, community college transfers compile first-year gpa's that are essentialy the same as those of students who transfer to CSU from other institutions. Data that compare the upper division persistence rates of CSUtransfers from different institutions apparently are not available.

Do those transfer students enrolled under special criteria perform as well as those who meet the regular criteria for transfer?

Data for CSU show that community college transfers admitted under special criteria drop out of upper division work at a substantially greater rate than do those transfers admitted under regular criteria. Those special admits who do persist compile significantly lower gpa's than their counterparts who were admitted under regular criteria.

Data are available to compare transfers admitted at UC under special (as opposed to regular) criteria, but were not obtained in time for inclusion in this report.

WHAT WE DON'T KNOW

It is clear from these findings that there are large gaps in our knowledge about transfer education. Some of these gaps are particularly important for

policymaking and warrant further investigation.

- More study is needed to identify the causes of recent gains in the number of community college transfers, particular among minority students. Case studies of individual community colleges whose special efforts appear to have had an impact would be helpful.

- More study should be made of the differences between the performance of transfer students admitted under special criteria as opposed to those admitted under regular criteria. The limited evidence now available suggests there are substantial differences.

- There needs to be better information about the effect on potential transfer students of program impaction at UC and CSU. Existing information is largely anecdotal, but does suggest that program impaction could be a major deterrent to successful transfer.

- There needs to be study of the impact of financial aid on transfer. This work would focus not only on the amount of aid available, but also on when it's awarded, what students (freshmen or transfer, etc.) receive poriority, and what difficulties are encountered in the transition?

- There obviously needs to be better identification of the motives and capabilities of community college students. Who wants to and may be capable of transferring? This kind of work would have taken place in the matriculation project and, in spite of the Governor's veto of needed funding, students must be assessed and assisted if the transfer function is to be improved.

- Little is known about the view of those who have transferred regarding the sufficiency of their community college lower division experience. Do these students feel they were adequately prepared for transfer?

- More accurate information on the number of community college transfers attending private four-year institutions in California would be useful. Also, nothing is known about those who transfer to out-of-state institutions.

- More complete information on the performance of transfer students at UC and CSU would be helpful. Little is known about their work after the first year in upper division.

- Virtually nothing is known about the performance of community college transfer students who attend in-state private and out-of-state institutions. While difficult to obtain, this information would be a useful adjunct to that available from UC and CSU.

- Efforts should be made to bring the two definitions of what constitutes a transfer student at UC and CSU together. UC looks at the college where the majority of prior work has

been accomplished, while CSU looks at the college of last attendance.

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APPENDIX A
STATISTICAL NOTES

STATISTICAL NOTE: The transfer figures cited in Section III are approximations. The University (UC) figure is that reported for Fall 1983. (No estimates are available for the number who transfer during other terms.) Ten percent of students transfer during other terms. The State University (CSU) figure is derived by increasing the Fall figure by 50%, the historic annual-to-Fall relationship. The independent college estimate is taken from reports of 54 major schools in the Association of Independent Colleges and Universities (AICU) reports. The AICU estimate of 4,800 total transfers from community colleges is adjusted upward by 400 to account for non-reporting insitutions and part-time transfers.

AICU data are for 54 independent colleges and universities. Excluded are institutions like National University, Coleman College, and many others to which community college students transfer. While the number of such transfers is unknown, it is increasing because these institutions offer work in business, computer sciences, and other high-demand subjects where the educational market is active.

While estimates for transfers to out-of-state institutions are not available, Sheldon's 1979 Statewide Longitudinal Survey (SLS) reported that the number of students transferring to out-of-state institutions was roughly equal to the number transferring to the in-state independent institutions. However, the student responses to both the SLS and Knoell's Through the Open Door (1975) suggested that the total number of students transferring to in-state private and out-of-state institutions was approximately half the number transferring to UC and CSU combined. This finding would suggest transfer numbers of at least 10,000 to out-of-state and 10,000 to in-state private institutions: roughly double the figure derived from AICU data!

TRANSFERS TO PRIVATE OR OUT-OF-STATE COLLEGES

A significant number of community college students elect to transfer to private or out-of-state colleges rather than the UC or CSU systems. The Association of Independent California Colleges and Universities (AICCU) estimated in 1984 that community college transfer students represented approximately 50% of their total number of transfers. During 1981-83, the number of community college transfers to these colleges increased by 11.3% (see Table 1 on following page). Although the data are somewhat limited, two studies estimated that these transfers may equal as much as one-half of the total who transfer to the UC and CSU systems.

The 1979 Statewide Longitudinal Survey contacted students over a two-year period after their initial enrollment at a community college. The data collected in this study were analyzed separately and included in a report on Transfer Students by the Chancellor's Office, California Community Colleges in 1981. This study found that one year after initially enrolling in community colleges, 68% of the students who transferred to a four-year college had gone to the UC or CSUC system and 32 % of the students had gone to private or out-of-state colleges.

This ratio of transfers between California's public four-year segments and the private or out-of-state colleges was also found in a longitudinal study completed in 1975 by the California Postsecondary Education Commission: "Through the Open Door." Students who first enrolled in community colleges in 1972 and were no longer attending in 1975 were contacted in to determine what type of institutions they had attended since leaving the community college. The data showed that 33% of the students had enrolled at UC or CSU and 17% had attended a California private or out-of-state college.

There is a need for data on the numbers of students who transfer to private or out-of-state colleges. This group of students represent approximately one-third of all students who transfer. Without accurate data on these students, there is a strong possibility of drawing erroneous conclusions on transfer student trends.

TABLE 1

MATRICULATIONS OF CALIFORNIA COMMUNITY COLLEGE STUDENTS
AT INDEPENDENT COLLEGES AND UNIVERSITIES
FALL 1981, 1982, AND 1983

Estimated Totals for 54 Institutions (Full-Time Students Only)

	1981	1982	1983	TWO-YEAR PERCENT CHANGE
TOTAL CCC TRANSFERS	4,313	4,593	4,800	+11.3%
TOTAL TRANSFERS	8,647	9,251	9,745	+12.7%
CCC TRANSFERS AS % OF ALL TRANSFERS	49.9%	53.5%	49.3%	

SOURCE: Association of Independent California Colleges and Universities, June 1984.

TABLE 2

CSUC UNDERGRADUATE ENROLLMENT
(PERCENT FROM EACH SOURCE)

SCHOOL OF ORIGIN	FALL 1979	FALL 1980	FALL 1981	FALL 1982	FALL 1983
HIGH SCHOOL	34.60	35.27	35.69	36.63	36.65
COMMUNITY COLLEGE	45.12	44.34	44.57	44.66	45.34
CSU	7.15	6.88	6.44	6.01	5.77
UC	2.55	2.51	2.41	2.29	2.27
INDEPENDENT	2.24	2.27	2.25	2.17	2.03
OUT-OF-STATE	6.56	6.70	6.54	6.15	5.86
FOREIGN	1.77	2.03	2.09	2.08	2.08
TOTAL UNDERGRADUATE ENROLLMENT	240,884	246,848	251,552	251,137	253,723

SOURCE: CSU Chancellor's Office, October 1984.

STUDENT OBJECTIVES

The UC and CSUC systems have experienced different trends in transfer enrollments. The data in Tables 2 and 3 include the academic majors which have experienced the largest increases and decreases over the last decade in numbers of Bachelors degrees conferred. The number of Bachelors degrees conferred was used since comparable data are not available on total undergraduate enrollments.

As indicated by the data, there are nine majors which have experienced growth over the last decade in both segments. In 1980-81, 36.0% of the Bachelors degrees granted in the UC system were in these growth majors whereas 61.3% of the CSUC Bachelors degrees were in these growth majors. Correspondingly, the percentages of Bachelors degrees granted in majors which declined over the last decade were 48.7% for the UC system and 33.3% for the CSUC system.

TABLE 3

UNIVERSITY OF CALIFORNIA

BACHELOR'S DEGREES CONFERRED BY
YEAR AND BY SELECTED DISCIPLINES
(Academic Year)

DISCIPLINE	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	PERCENT CHANGE 1971-81
AGRICULTURE AND NATURAL RESOURCES	324	441	412	485	608	649	671	669	694	659	103.4%
BUSINESS AND MANAGEMENT	306	349	430	439	529	541	620	648	724	923	201.6
COMMUNICATIONS	60	146	230	212	165	190	144	271	344	348	480.0
COMPUTER AND INFORMATION SCIENCE	179	117	134	157	173	191	202	242	322	325	81.6
ENGINEERING	1,096	1,011	970	935	1,101	1,241	1,409	1,603	1,732	1,900	73.4
HEALTH PROFESSIONS	321	311	439	562	468	409	441	421	484	540	68.2
PUBLIC AFFAIRS AND SERVICES	123	127	140	160	151	168	127	150	126	130	5.7
INTERDISCIPLINARY STUDIES	268	1,090	638	871	1,945	1,953	1,988	1,872	1,863	1,881	601.9
HOME ECONOMICS	264	298	305	296	271	243	204	127	118	90	- 65.9
ARCHITECTURE	285	217	431	427	277	314	328	308	262	309	8.4
BIOLOGICAL SCIENCES	1,824	2,161	2,786	3,035	3,016	3,023	2,760	2,706	2,472	2,346	28.6
PSYCHOLOGY	1,727	1,720	1,758	1,679	1,641	1,807	1,579	1,589	1,540	1,571	- 9.6
AREA STUDIES	140	82	88	78	101	118	112	82	99	103	- 26.4
EDUCATION	210	277	233	249	282	333	338	174	207	136	- 35.2
FINE AND APPLIED ARTS	1,317	1,164	1,210	1,443	1,499	1,514	1,359	1,365	1,398	1,248	- 5.2
FOREIGN LANGUAGE	648	652	683	768	634	535	509	494	460	426	- 34.3
LETTERS	1,997	1,915	1,735	1,623	1,639	1,458	1,355	1,321	1,303	1,258	- 37.0
MATHEMATICS	597	628	657	547	440	430	431	376	382	370	- 38.0
SOCIAL SCIENCE	6,530	6,127	6,160	5,684	5,397	5,100	4,943	4,771	4,688	4,506	- 28.2
TOTAL DEGREES IN ALL DISCIPLINES	18,862	19,370	20,061	20,277	20,954	20,878	20,187	19,811	19,989	19,733	

SOURCE: CPEC Information Digest 1977 and 1978

TABLE 4

CALIFORNIA STATE UNIVERSITIES AND COLLEGES

BACHELOR'S DEGREES CONFERRED BY
YEAR AND BY SELECTED DISCIPLINES
(Academic Year)

DISCIPLINE	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	PERCENT CHANGE 1971-81
AGRICULTURE AND NATURAL RESOURCES	860	891	1,007	1,017	1,124	1,247	1,493	1,515	1,518	1,369	59.2%
BUSINESS AND MANAGEMENT	6,084	6,567	7,178	7,000	7,327	7,760	8,070	8,262	9,057	9,900	62.7
COMMUNICATIONS	846	970	1,129	1,191	1,265	1,379	1,564	1,569	1,578	1,749	106.7
COMPUTER AND INFORMATION SCIENCE	148	160	187	169	212	236	237	299	375	517	249.3
ENGINEERING	1,952	1,973	1,931	1,776	1,709	1,806	1,904	2,129	2,354	2,876	47.3
HEALTH PROFESSIONS	1,246	1,683	2,096	2,167	2,303	2,242	2,733	2,623	2,559	2,466	97.9
PUBLIC AFFAIRS AND SERVICES	2,197	2,765	3,185	3,132	3,255	3,365	3,227	3,056	3,039	2,668	21.4
INTERDISCIPLINARY STUDIES	417	604	1,093	2,186	2,857	3,064	3,112	2,905	2,843	2,850	583.5
HOME ECONOMICS	913	967	1,051	1,023	1,174	1,110	1,128	1,098	962	1,005	10.1
ARCHITECTURE	338	382	288	425	501	405	393	384	406	355	5.0
BIOLOGICAL SCIENCES	1,577	1,892	2,072	2,144	2,216	2,108	1,981	1,787	1,646	1,486	- 6.1
PSYCHOLOGY	2,512	2,923	3,183	3,025	2,941	2,671	2,606	2,430	2,316	2,275	- 9.4
AREA STUDIES	240	268	248	202	167	135	136	115	96	76	- 68.3
EDUCATION	3,304	3,939	4,188	3,655	3,336	3,157	3,202	2,975	2,955	2,911	- 11.9
FINE AND APPLIED ARTS	2,820	2,942	3,116	2,799	2,813	2,660	2,641	2,549	2,482	2,358	- 16.4
FOREIGN LANGUAGE	854	932	869	827	714	632	664	503	519	477	- 44.1
LETTERS	4,092	3,969	3,731	2,884	2,535	2,142	1,991	1,846	1,718	1,708	- 58.3
MATHEMATICS	965	941	800	649	577	481	438	424	384	396	- 59.0
SOCIAL SCIENCE	11,102	11,203	9,938	7,856	6,803	5,951	5,197	4,618	4,348	3,784	- 65.9
TOTAL DEGREES IN ALL DISCIPLINES	43,178	46,699	48,018	44,818	44,598	43,291	43,465	41,842	42,122	41,993	

SOURCE: CPEC Information Digest 1977 and 1978.

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TABLE 5

NUMBER AND PERCENTAGE OF HIGH SCHOOL GRADUATES
ENROLLING AS FRESHMEN

	YEAR	NO. OF HS GRADS	UC	CSU	CCC	INDEP	TOTAL PUBLIC	GRAND TOTAL
TOTAL	1974	289,714	5.1%	7.6%	41.3%	---	54.0%	---
	1975	293,941	5.3	7.5	43.1	---	55.9	---
	1976	289,454	5..	7.8	41.7	---	54.6	---
	1977	285,360	5.2	8.0	43.3	3.6	56.6	60.1
	1978	263,841	5.5	8.4	41.4	3.4	55.3	58.7
	1980	270,971	6.0	9.0	43.0	3.5	58.0	61.5
	1981	260,339	6.4	9.0	42.1	3.3	57.6	60.8
	1982	265,924	6.4	9.0	42.8	3.2	58.2	61.4

SOURCE: CPEC College Going Rates, 1983.

TABLE 6

MARKET SHARE OF ENROLLEES

YEAR	UC	CSU	CCC	TOTAL
1974	14,775 (9.4%)	22,018 (14.1%)	119,652 (76.5%)	156,445
1982	17,019 (11.0%)	23,933 (15.5%)	113,815 (73.5%)	154,768
ENROLLMENT IF 1974 MARKET SHARE % WERE STILL EFFECTIVE	14,610	21,775	118,367	

SOURCE: CPEC College-Going Rates, 1983.

APPENDIX B
ANALYSIS OF TIME SERIES DATA

NOTE: Analyses of data displayed in Appendix B and Appendix D were performed using the Statistical Analysis System (SAS).

The detailed results of these analyses are available on request.

VARIABLE

YEAR — The five-digit year designations represent two different years. Starting from the left, the third and fifth digits designate the "current" year while the third and fourth digits designate the "prior" year. An example is the number 19635 which represents both the years of 1963 and 1965. The two-year designations are used to illustrate the relationship between particular data as with the total number of 1963 high school graduates and the number of transfers to UC in 1965.

UCTR — The number of community college transfers to UC for the "current" year.

UCTRR — The community college transfer rate to UC for the "current" year. Computed by dividing the "current" year's number of UC transfers from CC by the "prior" year's full-time community college enrollment.

CSTR — The number of community college transfers to CSUC for the "current" year.

CSTRR — The community college transfer rate to CSUC for the "current" year. Computed by dividing the current year's number of CSUC transfers from CC by the prior year's full-time community college enrollment.

UCAP — An indicator of the years in which the UC increased Accommodation of Transfer Student Program was active (0 = inactive, 1 = active) for current years.

DRFT — An indicator of the years in which the U.S. military draft was active (0 = inactive, 1 = active) for current years.

CCRE — The total community college credit enrollment for the prior year.

EADA — The expense of education (price adjusted) per ADA for one year earlier than the current year.

FTUCFR — The UC first-time freshmen rate for the prior year computed by dividing the number of UC first-time freshmen by the number of high school graduates.

FTCSFR — The CSUC first-time freshmen rate for the prior year computed by dividing the number of CSUC first-time freshmen by the nmber of high school graudates.

FTTFR — The combined (UC & CSUC) first-time freshmen rate computed by dividing the combined total of first-time freshmen by the number of high school graduates.

VARIABLE	
TTR	The combined total of community college transfers to UC annd CSUC for the current year.
TTRR	The overall community college transfer rate to both of the other segments. Computed by dividing the combined total of transfers for the current year by the prior year's full-time community college enrollment.
FTCCE	The total full-time community college enrollment for the prior year.
HRGRD	The total number of California high school graduates, public and private, for the prior year. The total numbers of high school graduates for June 1963 and June 1964 were computed by combining the number of public high school graduates reported in the U.S. Digest of Educational Statistics and an estimate of private high school graduates based upon the number of private high school graduates in 1965. The number of high school graduates from 1965 to 1970 was computed by combining the number of private high school graduates as reported in the U.S. Digest of Educational Statistics and the number of public high school graduates as reported by the Department of Education. The figures from 1971 to 1981 are from the Department of Finance.
FTUCF	The total number of first-time freshmen enrolled in UC for the prior year.
FTCSF	The total number of first-time freshmen enrolled in CSUC for the prior year.
FTTF	The combined total number of first-time freshmen at UC and CSUC for the prior year
UNER	The California unemployment rate for August of the prior year.
UNE	The number of unemployed persons in California for August of the prior year.

OBS	YEAR	UCTR	UCTRR	CSTR	CSTRR	TTR	TTRR	FTCCE	HSGRD	FTUCF	FTCSF	FTTF	UNER	UNE	UCAP	DRFT	CCRE	EADA	FTUCFR	FTCSFR	FTTFR
1	19635	2948	2.5	14603	11.7	17551	14.0	128221	183500	.	.	.	5.6	391	0	1	368008	1965	.	.	.
2	19646	3761	2.5	19295	12.5	23056	15.1	152401	190580	.	.	.	5.6	405	0	1	411338	2009	.	.	.
3	19657	3702	2.1	22059	11.6	25761	13.7	188871	245684	11749	14023	25772	5.6	415	0	1	459445	2027	4.8	5.7	10.5
4	19668	3735	2.0	26596	13.6	30381	15.2	198135	259262	12341	15574	27915	4.7	363	0	1	487458	2042	4.5	5.7	10.2
5	19679	4458	2.1	28207	13.2	32665	15.3	213496	274006	13072	16082	29154	4.9	385	0	1	521695	1982	5.2	6.3	11.5
6	19680	5166	2.2	29059	12.4	34225	14.6	233711	275736	11665	18844	30509	4.4	362	0	1	568146	2044	4.6	7.3	11.9
7	19691	6154	2.3	32546	12.7	38700	15.0	259047	286200	12066	17539	29605	4.4	380	0	1	602938	2023	4.5	6.6	11.1
8	19702	7165	2.5	34619	12.4	41784	14.9	282857	301370	13233	18984	32217	6.9	574	0	1	652133	2020	4.4	6.2	10.6
9	19713	8195	2.7	33089	11.1	41282	13.8	295620	302632	13637	19306	32943	8.9	773	1	0	694805	2000	4.4	6.2	10.6
10	19724	7813	2.8	32646	11.6	40459	14.4	284799	311251	14358	22094	36452	7.3	643	1	0	724432	1992	4.7	7.2	11.9
11	19735	8002	2.6	35537	11.9	43539	14.5	303070	305930	15811	22210	37221	7.5	682	1	0	852817	1915	4.9	7.2	12.1
12	19746	7123	2.2	32683	10.2	39776	12.4	324281	306405	14915	22886	37801	6.8	642	1	0	959707	1908	4.8	7.4	12.2
13	19757	6392	1.6	34001	9.1	40393	10.7	372506	309728	15460	23239	38699	9.3	896	0	0	1103991	2169	5.0	7.6	12.6
14	19768	6193	1.8	31609	9.7	37802	11.6	328104	306361	14935	23498	38433	9.0	900	0	0	1074658	2194	5.0	7.8	12.8
15	19779	5649	1.8	30428	9.5	36077	11.4	316206	299136	14820	23867	38687	7.9	837	0	0	1117990	2252	4.9	7.9	12.8
16	19780	5428	1.9	30490	10.5	35918	12.6	285130	300693	15850	24668	40519	7.0	769	0	0	1048756	2228	5.4	8.4	13.8
17	19791	4778	1.7	30026	10.6	34804	12.4	282765	293376	16534	25703	42237	6.3	728	0	0	1100681	2147	5.9	9.1	15.0
18	19802	5137	1.7	29824	10.1	34961	11.8	295883	281319	16340	25470	41810	7.4	877	0	0	1169976	2032	6.0	9.4	15.4
19	19813	5305	1.7	30274	9.7	35579	11.7	307898	271474	16580	23500	40080	6.9	823	0	0	1254991	2024	6.0	8.5	14.5

APPENDIX C
ALTERNATIVE TRANSFER RATE APPROXIMATIONS

COMPARISON OF COMMUNITY COLLEGE TRANSFERS TO UC AND CSU BY YEAR AND AGE

COMMUNITY COLLEGE				UC TRANSFERS					CSU TRANSFERS			
		FULL-TIME ENROLLMENT				RATES				RATES		
YEAR	TOTAL	<25 YRS. OLD	<20 YRS. OLD	YEAR	FALL TOTAL	OVERALL	<25 YRS. OLD	<20 YRS. OLD	FALL TOTAL	OVERALL	<25 YRS. OLD	<20 YRS. OLD
1963	128,221			1965	2,948	.023			14,603	.114		
1964	152,401			1966	3,761	.025			19,295	.127		
1965	188,871			1967	3,702	.020			22,059	.117		
1966	198,135			1968	3,785	.019			26,596	.134		
1967	213,496			1969	4,458	.021			28,207	.132		
1968	233,711			1970	5,166	.022			29,059	.124		
1969	259,047			1971	6,154	.024			32,546	.126		
1970	282,857			1972	7,165	.025			34,619	.122		
1971	295,620			1973	8,193	.028			33,089	.112		
1972	384,799	229,933	142,863	1974	7,813	.027	.034	.055	32,646	.115	.142	.229
1973	303,070	229,437	141,071	1975	8,002	.026	.035	.057	35,537	.117	.155	.252
1974	324,281	232,778	142,529	1976	7,123	.022	.031	.050	32,653	.101	.140	.229
1975	371,506	249,272	150,032	1977	6,392	.017	.026	.043	34,001	.092	.136	.227
1976	328,104	243,390	144,067	1978	6,193	.019	.025	.043	31,609	.096	.130	.219
1977	316,206	239,256	140,426	1979	5,649	.018	.024	.040	30,428	.096	.127	.217
1978	285,130	219,116	129,821	1980	5,428	.019	.025	.042	30,490	.107	.139	.235
1979	282,765	220,362	130,229	1981	4,778	.017	.022	.037	30,026	.106	.136	.231
1980	295,883	229,259	132,316	1982	5,137	.017	.022	.039	29,824	.101	.130	.225
1981	303,685	234,148	130,972	1983	5,305	.017	.023	.041	30,274	.100	.129	.231

SOURCE: California Postsecondary Education Commission, Chancellor's Office Information System

APPENDIX D
ANALYSIS OF DATA FOR INDIVIDUAL COMMUNITY COLLEGES

NOTE: Analyses of data displayed in Appendix B and Appendix D were performed using the Statistical Analysis System (SAS).

The detailed results of these analyses are available on request.

SPECIFICATIONS

VARIABLE	
CFFT	First-time, full-time, less-than 25 year-old students enrolled during Fall 1980
ST	Fall 1982 State University transfers from community colleges
SFTR	ST divided by CFFT
UT	Fall 1982 University transfers from community colleges
UFTR	UT divided by CFFT

OBS	C	CFFT	BT	SFTR	UT	UFTR
1	ALAMDA	485	159	32.8	41	13.6
2	AHANCK	621	166	26.7	26	4.2
3	ANTVAL	480	105	21.9	16	3.3
4	AMRIVR	1946	747	38.4	113	5.8
5	BAKFLD	2264	333	14.7	21	0.9
6	CABRLL	699	265	37.9	152	21.7
7	CANADA	756	165	21.8	34	4.5
8	CANYON	315	113	34.9	18	5.7
9	CERITO	1006	555	55.2	36	3.6
10	CROSSO	58	34	58.6	3	5.2
11	CHABOT	1128	472	41.8	64	6.2
12	CHAFFY	944	281	29.8	24	2.5
13	CITRUS	702	241	34.3	25	3.6
14	COASTL	73	56	76.7	5	6.8
15	COLMBA	148	60	40.5	6	4.1
16	COMPTN	283	154	54.4	5	1.8
17	CCOSTA	555	147	26.5	20	3.6
18	COSUMN	429	164	38.2	9	2.1
19	CRAFTC	224	108	48.2	21	9.3
20	CUESTA	631	255	41.6	22	3.5
21	CUYAMA	101	45	44.6	3	3.0
22	CYPRES	2453	383	15.6	37	1.5
23	DEANZA	1155	604	52.3	131	11.3
24	DESERT	391	98	25.1	15	3.8
25	DIABLO	1766	818	45.7	229	13.0
26	EASTLA	982	338	34.4	45	4.6
27	EVERGR	646	151	23.4	9	1.4
28	FEATHR	87	24	27.6	5	5.7
29	FOOTHL	673	374	55.6	125	18.6
30	FRESNO	1627	609	37.4	14	0.9
31	FULLTN	1135	726	63.9	62	5.5
32	GAVILN	296	76	25.7	10	3.4
33	GLENDL	922	303	32.9	47	5.1
34	GOLDWS	1206	515	42.7	61	5.1
35	GROSSM	1017	435	42.8	65	6.4
36	HARTNL	574	181	31.5	39	6.8
37	IMPERL	480	127	26.5	16	3.3
38	INDVAL	161	93	57.8	10	6.2
39	KINGRV	576	155	26.9	8	1.4
40	LACITY	1227	426	34.7	80	6.5
41	LAHARB	831	355	42.7	40	4.8
42	LAPISS	54	38	70.4	4	7.4
43	LAPIER	1894	858	44.2	114	6.0
44	LASCUT	439	123	28.0	3	0.7
45	LATRAD	873	121	13.7	7	0.8
46	LAVALL	1403	562	40.1	90	6.4
47	LTAHOE	54	19	35.2	2	3.7
48	LANEYC	371	145	39.1	27	7.3
49	LASSEN	203	57	28.1	4	2.0
50	LONGBH	3078	632	20.6	50	1.6
51	LOSMED	250	67	26.8	4	1.6
52	MARINC	546	278	50.9	78	14.3
53	MENDCO	105	54	51.4	3	2.9
54	MERCED	806	245	30.4	21	2.6
55	MERRIT	506	187	37.0	45	8.9
56	MIRACC	309	67	21.7	37	11.8

CBS	L	CFFT	ST	SFTR	UT	UFTR
57	MISSON	218	85	39.0	7	3.2
58	MODEST	788	423	53.7	41	5.2
59	MONTRY	360	175	48.6	63	17.5
60	MOORPK	1031	291	28.2	59	5.7
61	MTSANT	1597	567	35.5	35	2.2
62	MTSJAC	200	43	21.5	11	5.5
63	NAPACC	715	150	20.8	35	4.9
64	NOADLT	.	.	.	.	.
65	OHLONE	610	237	38.9	24	4.5
66	ORANGE	2028	915	45.1	215	10.6
67	OXNARD	246	39	15.9	14	5.7
68	PALOVD	52	.	.	2	3.8
69	PALOMR	1117	332	29.7	93	8.3
70	PASADN	1165	617	53.0	121	10.4
71	PORTVL	285	82	28.8	8	2.8
72	REDWOD	.	218	.	6	.
73	RIOHDO	812	258	31.8	18	2.2
74	RIVRSD	879	337	38.3	103	11.7
75	SACRAM	1194	565	47.3	121	10.1
76	SADDLE	1038	445	42.9	104	10.0
77	SBERND	902	363	40.2	54	6.0
78	SDIEGO	574	213	37.1	70	12.2
79	SDMESA	.	587	.	89	.
80	SDMIRA	44	20	45.5	5	11.4
81	SNFRAN	1896	803	42.4	101	5.3
82	SNJCAE	773	539	69.7	90	11.6
83	SNJOSE	906	228	25.2	16	1.8
84	SMATEO	.	524	.	99	.
85	SNTANA	736	340	46.2	30	4.1
86	SBARBA	961	218	22.7	210	21.9
87	SMONCA	1043	419	40.2	211	20.2
88	STROSA	1244	556	44.7	81	6.5
89	SEQUOI	1099	310	28.2	34	3.1
90	SHASTA	986	252	25.6	29	2.9
91	SIERRA	882	310	35.1	31	3.5
92	SISKIY	231	69	29.9	6	2.6
93	SKYLNE	.	193	.	18	.
94	SOLANO	586	153	26.1	34	5.8
95	SOUTHW	998	245	24.5	23	2.3
96	TAFTCO	126	23	18.3	2	1.6
97	VENTUR	1077	280	26.0	127	11.8
98	VICTOR	200	74	37.0	7	3.5
99	VISTAC	28	7	25.0	0	0.1
100	WSHILL	229	65	28.4	.	.
101	WESTLA	549	199	36.2	30	5.5
102	WSVALL	1100	675	61.4	89	8.1
103	YUBACO	558	239	42.8	16	2.9

SPECIFICATIONS

VARIABLE	
CFT	1981 full-time community college enrollment
ST	Fall 1982 CSUC transfers from community colleges
STR	Fall 1982 CSUC transfer rates (transfers/full-time CC enrollment)
SPR	Fall 1983 CSUC persistence rates (based upon No. of Fall 1982 community college transfers who persisted to Fall 1983)
UT	Fall 1982 UC transfers from community colleges
UTR	Fall 1982 UC transfer rates (transfers/full-time CC enrollment)
SG	Fall 1983 regular CSUC transfers' GPA
SCG	Fall 1983 regular CSUC transfers' community college GPA
SGD	Difference between 1983 regular CSUC Transfer CSU's GPA and 1983 regular transfers' community college GPA
UG	1982 UC transfers' GPA (survivors only)
UCG	1982 UC transfers' community college GPA (based upon the units completed by community college transfers who persisted to Fall 1983)
UCD	Difference between 1982 UC transfer GPA and their community college GPA (based upon units completed by community college transfers who persisted to Fall 1983)
MN	Percentage of minority (including American Indian/Alaskan, Asian/ Pacific Islander, Black, Hispanic, Filipino for community colleges Fall 1981 enrollment
MNA	Percentage of minority (excluding Asian/Pacific Islander) for community colleges Fall 1981 enrollment
PRG	Percentage of workload in liberal arts and sciences baccalaureate courses based upon 1981-82 fiscal year's student contact hours for each community college
CE	Current expense of education (budgeted) per ADA for fiscal year 1982-83
SLC	A community college's proximity to a CSUC campus (0 = less than 25 miles, 1 = 25 to 100 miles, 2 = more than 100 miles)
ULC	A community college's proximity to a UC campus (0 = less than 25 miles, 1 = 25 to 100 miles, 2 = more than 100 miles)

VARIABLE	
DUT	Change in the numbers of community college transfers to UC from 1977 to 1981
PDUT	Percentage change of community college transfers to UC from 1977-1981
DST	Change in the numbers of transfers to CSUC from 1977-1981
PDST	Percentage change of community college transfers to CSUC from 1977-1981
DUTR	Numerical change of community college transfers to UC from 1981-1983
PDUTR	Percentage change in number of community college transfers to UC from 1981-1983
DSTR	Numerical change of community college transfers to CSUC from 1981-1983
PDSTR	Percentage change in the number of community college transfers to CSUC from 1981-1983
DMUT	Difference in the number of community college minority transfers (excluding Asian/Pacific Islanders) to UC between 1981 and 1983
PDMUT	Percent change in the number of community college minority transfers (excluding Asians/Pacific Islanders) to UC from 1981 to 1983
DMST	Differences in the numbers of community college minority transfers (excluding Asian/Pacific Islanders and American Indians) between 1982 and 1983
PDMST	Percent change in the number of community college minority transfers (excluding Asian/Pacific Islanders and American Indians) from 1982 to 1983
DFT	Numerical difference between the 1975 and 1979 community college full-time enrollments
PDFT	Percent change in full-time enrollment for community colleges from 1975 to 1979
DIFT	Numerical difference between 1979 and 1981 community college full-time enrollments
PDIFT	Percent change in full-time enrollment for community college from 1979 to 1981
EFID	Indicator of the colleges' special efforts to identify potential transfer students beyond student self-identification based upon a Chancellor's Office 1980 survey: colleges did (1) or did not (0)

VARIABLE	
EFWK	Indicator of the colleges' efforts aside from identification to assist and to encourage potential transfer students (practices and activities routinely performed by EOPS and Handicapped Services as well as campus orientation sessions were excluded). This was based upon the 1980 survey
EFC	Indicator of recent special practices and activities by the colleges to assist and to encourage transfer students
CFFT	First-time, full-time, less-than 25 year-old students enrolled in community colleges during Fall 1980
SFTR	Fall 1982 CSUC transfers divided by CCFT
UFTR	Fall 1982 UC transfers divided by CFFT
STRX	Fall 1982 CSUC transfers admitted under special action
STRXP	Fall 1982 CSUC transfers who persisted to Fall 1983
STRXSG	1982-83 GPA for those 1982 CSUC transfers admitted under special action and who persisted to Fall 1983
STRXCG	Community college GPA for those 1982 CSUC transfers admitted under special action and who persisted to Fall 1983

OBS	C	CFT	ST	STR	SPR	UT	UTR	SG	SCG	SGD	UG	UCG	UGD	MN	MNA	PRG	CE	SLC	ULC	EFF	DUT	PDUT	DST	PDST	DUTR
1	ALAMDA	2273	159	7.0	66	41	1.8	2.55	3.06	-0.51	2.63	3.60	-0.97	61	49	54	1902	0	0	.	14	41	35	22	11
2	AMANCK	1946	166	8.5	84	26	1.3	2.71	3.07	-0.36	2.36	3.15	-0.79	30	27	44	1769	1	1	.	-19	-48	-37	-18	13
3	ANTVAL	1402	105	7.5	82	16	1.1	2.78	2.95	-0.17	2.98	3.24	-0.26	16	14	53	1802	1	1	.	-12	-40	-35	-22	3
4	AMRIVR	6984	747	10.7	75	113	1.6	2.86	2.90	-0.04	2.89	3.22	-0.33	19	16	61	1974	0	0	.	-38	-25	-196	-20	18
5	BAKFLD	2990	333	11.1	75	21	0.7	2.65	2.83	-0.18	2.84	3.34	-0.50	29	28	47	2261	0	2	.	-16	-42	-101	-21	6
6	CABRLL	3207	265	8.3	76	152	4.7	2.82	2.96	-0.14	2.89	3.29	-0.40	15	13	69	2187	1	0	.	-26	-15	14	6	18
7	CANADA	1663	165	9.9	71	34	2.0	2.71	3.00	-0.29	2.70	3.44	-0.74	60	58	51	2245	0	1	.	-27	-49	-107	-45	1
8	CANYON	986	110	11.2	72	18	1.8	2.67	2.98	-0.31	2.68	3.32	-0.64	14	12	57	2324	0	0	.	3	27	-37	-33	-5
9	CERITO	5223	555	10.6	67	36	0.7	2.64	2.95	-0.31	2.56	3.22	-0.66	42	35	47	1892	0	0	.	11	30	-54	-7	-20
10	CRCOSO	323	34	10.5	65	3	0.1	2.75	2.95	-0.20	3.93	3.91	0.02	21	20	36	2261	1	1	.	-1	-17	-3	-7	3
11	CHABOT	4028	472	11.7	70	64	1.6	2.80	2.96	-0.16	2.69	3.18	-0.49	32	26	50	2385	0	0	.	-1	-1	-61	-11	6
12	CHAFFY	3716	281	7.6	71	24	0.6	2.76	3.01	-0.25	2.79	3.43	-0.64	28	24	50	3751	1	0	.	-6	-14	-111	-32	-3
13	CITRUS	2647	241	9.1	69	25	0.9	2.63	2.99	-0.36	2.61	3.11	-0.50	26	21	45	1944	0	0	.	-2	-8	-61	-21	-1
14	COASTL	300	56	18.7	67	5	1.7	2.94	3.06	-0.12	2.21	3.47	-1.26	10	6	57	2018	0	0	.	2	100	18	67	-1
15	COLMBA	677	60	8.9	76	6	0.9	2.82	3.04	-0.22	2.55	3.31	-0.76	4	3	54	2313	1	2	.	-6	-55	11	21	1
16	COMPTN	1824	154	8.4	63	5	0.3	2.49	2.75	-0.26	1.55	3.14	-1.59	93	91	40	2291	0	0	.	-26	-79	-34	-15	-1
17	CCOSTA	2286	147	6.4	66	20	0.9	2.55	2.92	-0.37	2.92	3.23	-0.68	48	39	54	2187	0	0	.	3	10	-21	-11	-1
18	COSUMN	1492	164	11.0	71	9	0.6	2.74	3.05	-0.31	2.73	3.18	-0.76	33	27	49	1974	0	1	.	-17	-65	-22	-12	12
19	CRAFTO	855	108	12.6	65	21	2.5	2.79	2.91	-0.12	2.70	3.34	-0.64	17	15	51	2048	1	1	.	-8	-26	17	19	-8
20	CUESTA	2425	255	10.5	73	22	0.9	2.67	2.98	-0.31	3.05	3.43	-0.38	13	11	61	2047	0	1	.	4	24	31	19	-10
21	CUYAMA	516	45	8.7	64	3	0.6	2.81	3.14	-0.33	3.07	3.93	-1.19	15	16	37	2132	0	0	.	2	.	.	.	3
22	CYPRES	4436	383	8.6	71	37	0.8	2.72	2.90	-0.18	2.50	3.07	-0.57	23	17	64	1919	0	0	.	-13	-30	-49	-10	.
23	DEANZA	6014	604	10.0	80	131	2.2	2.79	3.01	-0.22	2.81	3.26	-0.45	.	.	50	1768	1	1	.	-47	-32	-62	-10	22
24	DESERT	1328	98	7.4	56	15	1.1	2.76	2.97	-0.21	2.56	3.16	-0.57	24	23	48	2620	2	1	.	-24	-60	-25	-24	3
25	DIABLO	5495	810	14.7	76	229	4.2	2.73	2.91	-0.18	2.75	3.25	-0.50	14	12	71	2187	1	1	.	-19	-9	160	22	14
26	EASTLA	4328	338	7.8	63	45	1.0	2.47	2.99	-0.52	2.36	3.15	-0.79	87	82	57	2656	0	0	.	-22	-30	-125	-23	-2

OBS	PDUTR	DSTR	PDSTR	DMUT	PDMUT	DMST	PDMST	DFT	PDFT	DIFT	PDIFT	EFID	EFWK	EFC	CFFT	SFTR	UFTR	STRX	STRXP	STRXSG	STRXCG
1	28	15	12	6	50	-4	-6	-146	-6	8	0	1	1	1	485	32.8	13.6	26	14	2.24	2.60
2	62	-11	-6	2	50	-6	-19	-495	-20	-78	-4	0	1	0	621	26.7	4.2	25	16	2.51	3.01
3	17	14	11	2	100	17	189	-551	-29	54	4	0	1	0	480	21.9	3.3	6	5	2.83	2.69
4	16	-59	-8	7	64	34	81	-2192	-25	402	6	1	1	1	1946	38.4	5.8	37	25	2.54	2.46
5	27	-35	-9	2	100	10	19	-2483	-43	-280	-9	1	1	1	2264	14.7	0.9	45	26	2.06	2.63
6	12	8	3	3	18	-1	-8	-471	-14	309	11	0	0	0	699	37.9	21.7	24	14	2.65	2.63
7	4	13	10	-4	-67	-9	-41	-422	-23	238	17	0	1	0	756	21.8	4.5	15	10	2.19	2.44
8	-36	32	43	1	.	6	120	-508	-38	171	21	0	0	0	315	34.9	5.7	7	5	2.60	2.31
9	-42	-13	-2	-8	-53	-1	-1	-2208	-31	317	6	1	1	0	1006	55.2	3.6	33	22	2.54	2.57
10	60	5	13	0	0	-2	-67	-253	-46	27	9	0	0	1	58	58.6	5.2	3	2	2.12	2.29
11	9	52	11	-4	-33	3	3	-1578	-30	421	12	1	1	0	1128	41.8	6.2	49	33	2.59	2.51
12	-8	44	19	1	17	9	26	-1119	-24	209	6	0	0	0	944	29.8	2.5	33	17	2.59	2.33
13	-5	38	17	1	33	8	24	-1480	-38	257	11	1	1	0	702	34.3	3.6	25	13	2.59	2.89
14	25	1	2	0	0	1	50	.	.	99	49	0	1	0	73	76.7	6.8	4	2	2.32	2.41
15	20	-2	-3	0	0	5	250	-404	-41	85	14	0	0	1	148	40.5	4.1	6	3	2.63	2.52
16	-14	-99	-52	1	20	-51	-38	-966	-33	-113	-6	0	1	0	283	54.4	1.8	30	15	2.32	2.81
17	-3	-27	-16	2	33	5	9	-868	-30	216	10	.	.	0	555	26.5	3.6	15	7	2.22	2.54
18	133	-11	-7	2	100	3	14	-1285	-61	1492	207	0	0	1	429	38.2	2.1	9	7	2.28	2.19
19	-35	8	8	0	0	2	25	3	0	118	16	0	0	0	224	48.2	9.3	13	7	2.45	2.61
20	-48	104	54	1	100	14	108	-224	-11	642	36	0	0	0	631	41.6	3.5	33	22	2.65	2.78
21	1	2	5	5	0	-3	-60	.	.	.	193	1	0	1	101	44.6	3.0	3	3	3.00	3.46
22	.	-44	-10	0	0	-10	-20	-823	-16	176	4	1	1	1	2453	15.6	1.5	12	7	2.36	2.71
23	22	108	20	7	350	18	43	-872	-15	1245	26	0	0	1	1155	52.3	11.3	40	30	2.26	2.61
24	19	30	37	2	200	-2	-7	-632	-33	35	3	0	0	0	391	25.1	3.8	9	5	2.42	2.81
25	7	-109	-12	3	21	17	53	-639	-10	38	1	0	0	0	1766	45.7	13.0	32	22	2.42	2.60
26	-4	-65	-16	-8	-20	4	2	-1444	-24	-139	-3	0	0	0	982	34.4	4.6	34	18	2.24	2.77

OBS	C	CFT	ST	STR	SPR	UT	UTR	SG	SCG	SGD	UG	UCG	UGD	MN	MNA	PRG	CE	SLC	ULC	EFF	OUT	PDUT	DST	PDST	DUTR
27	EVERGR	2453	151	6.2	61	9	0.4	2.72	2.96	-0.24	2.66	3.37	-0.69	33	22	53	2309	0	1	.	-3	-27	65	75	7
28	FEATHR	311	24	7.7	50	5	1.6	2.57	2.92	-0.35	2.93	3.38	-0.45	9	8	60	1902	1	2	.	-1	-50	-4	-11	1
29	FOOTHL	3275	374	11.4	75	125	3.8	2.77	3.00	-0.23	2.74	3.30	-0.56	23	13	57	1766	0	1	.	-34	-19	-89	-18	3
30	FRESNO	5151	609	11.8	77	14	0.3	2.69	2.94	-0.25	2.62	3.35	-0.73	37	33	.	2891	0	2	.	-11	-35	-57	-8	-8
31	FULLTN	4465	726	16.3	73	62	1.4	2.67	2.89	-0.22	2.70	3.27	-0.57	24	17	55	1919	0	0	.	-21	-27	-22	-3	5
32	GAVILN	873	76	8.7	80	10	1.1	2.86	3.08	-0.22	2.55	3.38	-0.83	38	34	46	2240	1	1	.	-7	-41	-16	-18	7
33	GLENDL	3120	303	9.7	76	47	1.5	2.56	2.83	-0.27	2.73	3.12	-0.39	42	31	55	1649	0	0	.	-17	-24	5	2	16
34	GOLDWS	4437	515	11.6	72	61	1.4	2.78	3.09	-0.31	2.70	3.37	-0.67	20	13	57	2018	0	0	.	-8	-12	105	24	15
35	GROSSM	4668	435	9.3	74	65	1.4	2.69	3.00	-0.31	2.87	3.23	-0.36	16	13	67	2182	0	0	.	-19	-23	-51	-9	-6
36	HARTNL	2060	181	8.8	76	39	1.9	2.73	3.01	-0.28	2.72	3.25	-0.53	40	35	44	2020	2	2	.	-8	-22	13	8	-2
37	IMPERL	1934	127	6.6	61	16	0.8	2.82	3.02	-0.20	2.45	3.31	-0.86	69	68	.	2496	2	2	.	-15	-60	22	17	4
38	INDVAL	619	93	15.0	72	10	1.6	2.78	3.14	-0.36	2.75	3.53	-0.78	13	10	.	2116	1	1	.	-9	-43	-33	-26	-6
39	KINGRV	1557	155	10.0	81	8	0.5	2.67	3.09	-0.42	3.01	3.68	-0.67	38	34	.	2891	0	2	.	-5	-38	-25	-13	-2
40	LACITY	6321	426	6.7	65	80	1.3	2.58	2.87	-0.29	2.71	3.23	-0.52	76	63	53	2656	0	0	.	-105	-60	-140	-24	19
41	LAMARB	3184	355	11.1	71	40	1.3	2.65	2.83	-0.18	2.62	3.25	-0.63	54	44	55	2656	0	0	.	-18	-34	-82	-18	12
42	LAMISS	302	38	12.6	60	4	1.3	2.53	2.95	-0.42	2.38	3.42	-1.04	52	50	50	2656	0	0	.	-9	-90	-1	-3	2
43	LAPIER	6746	838	12.4	73	114	1.7	2.60	2.79	-0.19	2.57	3.09	-0.52	.	.	59	2656	0	0	.	-46	-33	-107	-12	23
44	LASOLT	1999	123	6.2	60	3	0.2	2.48	2.68	-0.20	.	3.39	.	99	99	46	2656	0	0	.	-9	-56	-31	-19	-2
45	LATRAD	4731	121	2.6	2	7	0.1	2.47	2.83	-0.36	2.50	3.72	-1.22	86	79	17	2656	0	0	.	-3	-27	-1	-13	-57
46	LAVALL	4829	562	11.6	67	90	1.9	2.68	2.95	-0.27	2.88	3.14	-0.26	42	36	61	2656	0	0	.	-83	-48	-174	-23	3
47	LTAHOE	228	19	8.3	68	2	0.9	2.78	3.28	-0.50	1.82	3.86	-2.04	9	8	67	3051	2	2	.	3	.	-7	-32	2
48	LANEYC	2810	145	5.2	69	27	1.0	2.64	3.05	-0.41	3.07	3.56	-0.49	71	52	47	1902	0	0	.	-14	-25	-103	-44	-11
49	LASSEN	736	57	7.7	67	4	0.5	2.65	3.07	-0.42	2.37	3.21	-0.84	17	15	39	1910	2	2	.	3	100	-10	-19	1
50	LONGBH	5025	632	12.8	73	50	1.0	2.75	2.91	-0.16	2.89	3.29	-0.40	33	26	.	1920	0	0	.	-28	-36	-152	-18	-19
51	LOSMED	1027	67	6.5	70	4	0.4	2.71	3.09	-0.38	2.01	2.79	-0.78	25	23	52	2187	1	1	.	-2	-18	-41	-37	-3
52	MARINC	2217	278	12.5	80	78	3.5	2.80	2.98	-0.18	2.76	3.32	-0.56	13	9	.	2063	0	0	.	-48	-38	-89	-23	6

OBS	PDUTR	DSTR	PDSTR	DMUT	PDMUT	DMST	PDMST	DFT	PDFT	DIFT	PDIFT	EFID	EFWK	EFC	CFFT	SFTR	UFTR	STRX	STRXP	STRXSG	STRXCG
27	88	26	18	C	0	1	2	205	13	675	38	1	1	1	646	23.4	1.4	12	7	2.55	2.55
28	100	-10	-29	C	0	-1	-50	-217	-55	130	72	0	0	0	87	27.6	5.7	2	2	2.51	3.34
29	2	-13	-3	2	33	17	81	-407	-10	-498	-13	1	0	1	673	55.6	18.6	32	18	2.93	2.79
30	-40	-35	-6	-3	-43	-24	-18	-820	-13	-151	-3	0	0	0	1627	37.4	0.9	87	63	2.47	2.72
31	9	16	2	3	100	24	39	-3079	-42	144	3	1	1	1	1135	63.9	5.5	41	28	2.64	2.81
32	41	3	4	C	0	C	0	-378	-29	-49	-5	.	.	C	296	25.7	3.4	5	2	3.37	3.24
33	30	32	10	3	38	4	9	-211	-8	519	20	1	1	0	922	32.9	5.1	18	13	2.57	2.76
34	25	-7	-1	3	100	3	8	-1170	-23	494	13	0	0	0	1206	42.7	5.1	24	12	2.56	2.71
35	-10	51	10	2	33	6	19	-1747	-30	626	15	0	1	1	1017	42.8	6.4	26	18	2.55	2.88
36	-7	12	6	-2	-50	19	43	-1097	-38	302	17	.	.	0	574	31.5	6.8	13	9	2.52	2.76
37	40	-22	-15	-1	-11	7	9	-288	-13	35	2	1	1	0	480	26.5	3.3	6	2	2.39	2.51
38	-50	-3	-3	-1	-50	3	100	-260	-30	13	2	1	0	0	161	57.8	6.2	4	3	3.49	3.05
39	-25	0	0	1	.	19	83	-251	-15	161	12	.	.	1	576	26.9	1.4	15	12	2.19	2.47
40	27	-45	-10	1	3	-15	-7	-2635	-30	262	4	.	.	0	1227	34.7	6.5	64	35	2.15	2.49
41	34	-28	-7	-1	-14	-2	-2	-1675	-34	.	.	.	.	1	831	42.7	4.8	26	15	2.60	2.57
42	200	4	11	1	.	5	26	-205	-40	-7	-2	0	0	0	54	70.4	7.4	3	0	.	.
43	24	-22	-3	13	650	-22	-28	-2324	-26	227	3	0	0	1	1894	44.2	6.0	47	33	2.53	2.42
44	-29	1	1	-2	-29	6	5	118	6	-6	0	.	.	1	439	28.0	0.7	27	19	2.29	2.69
45	-29	-5	-3	-2	-29	20	20	-2457	-34	29	1	0	1	0	873	13.7	0.8	27	15	2.60	2.58
46	3	-64	-11	2	18	-3	-4	-2806	-35	-439	-8	.	.	0	1403	40.1	6.4	34	19	2.17	2.43
47	67	3	20	C	0	-1	-100	-89	-33	47	26	0	0	0	54	35.2	3.7	0	0	.	.
48	-26	17	13	-1	-8	-6	-9	-884	-25	92	3	0	1	1	371	39.1	7.3	17	9	2.15	2.85
49	17	17	40	C	0	3	38	-162	-17	-41	-5	1	1	0	203	28.1	2.0	8	5	2.43	2.11
50	-38	-44	-6	-4	-31	-3	-2	-1948	-27	-172	-3	1	1	0	3070	20.6	1.6	38	29	2.28	2.38
51	-33	-2	-3	C	0	-2	-17	-831	-45	23	2	0	0	0	250	26.8	1.6	1	0	.	.
52	8	-37	-12	2	100	2	18	-1251	-35	-116	-5	0	0	0	546	50.9	14.3	24	11	2.87	2.89

OBS	C	CFT	ST	STR	SPR	UT	UTR	SG	SCG	SGD	UG	UCG	UGD	MN	MNA	PRG	CE	SLC	ULC	EFF	DUT	PDUT	DST	PDST	DUTR
53	MENDCO	491	54	10.9	76	3	0.6	2.79	3.14	-0.35	3.24	3.77	-0.53	11	10	47	2116	1	2	.	-2	-100	-17	-25	4
54	MERCED	2775	245	8.8	75	21	0.8	2.73	3.02	-0.29	2.72	3.13	-0.41	31	27	41	1799	1	2	.	-6	-33	-11	-4	4
55	MERRIT	2585	187	7.2	73	45	1.7	2.74	3.00	-0.26	2.79	3.43	-0.64	35	46	51	1902	0	0	.	-35	-42	-112	-42	3
56	MIRACO	1579	67	4.2	78	37	2.3	2.70	3.06	-0.36	2.78	3.32	-0.54	24	21	60	2199	1	1	.	-5	-21	-10	-11	14
57	MISSON	1457	85	5.8	72	7	0.5	2.77	3.19	-0.42	3.10	3.24	-0.14	34	21	.	1908	0	1	.	8	.	.	.	-2
58	MODEST	3534	423	12.0	78	41	1.2	2.94	2.97	-0.03	2.74	3.08	-0.34	18	14	48	2313	0	2	.	-20	-38	-91	-18	7
59	MONTRY	1841	175	9.5	75	63	3.4	2.65	3.03	-0.38	2.54	3.31	-0.77	29	24	65	1788	1	1	.	-50	-50	-46	-20	16
60	MCORPK	2982	291	9.8	68	59	2.0	2.67	3.08	-0.41	2.64	3.38	-0.74	17	15	58	1966	0	1	.	-31	-37	-60	-18	18
61	MTSANT	6237	567	9.0	67	35	0.6	2.69	2.83	-0.14	2.66	3.15	-0.49	36	31	.	2021	0	1	.	-31	-51	-135	-21	6
62	MTSJAC	771	43	5.6	73	11	1.4	2.78	3.31	-0.53	2.71	3.54	-0.83	18	17	40	2386	1	1	.	4	27	-4	-10	-6
63	NAPACO	.	150	.	78	35	.	2.80	3.05	-0.25	2.63	3.24	-0.61	.	.	.	2116	1	1	.	-13	-34	-8	-5	11
64	NOADLT	.	.	.	.	.	.	.	.	.	.	.	.	38	27	.	1919	.	.	.	.	.	.	.	.
65	OHLONE	2189	237	10.8	69	24	1.1	2.77	2.93	-0.16	2.63	3.21	-0.38	22	13	.	2238	1	1	.	6	38	78	49	11
66	ORANGE	7622	915	12.0	71	215	2.8	2.63	2.93	-0.30	2.74	3.22	-0.48	23	14	54	2018	1	1	.	-15	-6	109	14	28
67	OXNARD	1145	39	3.4	65	14	1.2	2.55	3.10	-0.55	2.49	3.57	1.08	49	45	42	1966	1	1	.	-6	-60	13	62	15
68	PALCVD	157	.	.	.	2	1.3	.	.	.	2.87	.	.	40	40	43	2800	2	2	.	.	.	-11	-69	.
69	PALOMR	4661	332	7.1	74	93	2.0	2.70	2.97	-0.27	2.77	3.23	-0.46	21	17	.	2033	1	1	.	-50	-36	70	21	29
70	PASADN	6172	617	10.0	75	121	2.0	2.62	2.85	-0.23	2.89	3.21	-0.32	40	33	58	2022	0	0	.	-67	-33	-165	-21	-16
71	PORTVL	714	82	11.4	61	8	1.1	2.83	3.06	-0.23	2.85	3.38	-0.53	25	23	49	2261	1	2	.	-7	-70	-26	-28	-7
72	REDWOD	2451	210	8.6	71	6	0.2	2.96	3.00	-0.04	3.20	3.77	-0.57	11	10	40	2156	0	2	.	-3	-20	-81	-27	1
73	RIOHDO	2794	258	9.2	71	18	0.6	2.69	2.96	-0.27	2.54	3.27	-0.73	47	42	50	2007	0	0	.	-31	-66	-123	-31	-2
74	RIVRSD	3638	337	9.3	73	103	2.8	2.71	2.84	-0.13	3.16	2.80	-0.36	26	25	53	1869	1	1	.	-72	-46	-23	-7	18
75	SACRAM	5165	565	10.9	73	121	2.3	2.74	2.96	-0.22	2.80	3.40	-0.60	45	32	56	1974	0	0	.	-60	-39	-185	-24	6
76	SADDLE	4713	445	9.4	74	104	2.2	2.60	2.95	-0.35	2.84	3.27	-0.43	13	9	44	2202	0	0	.	10	10	47	14	23
77	SBERND	3733	363	9.7	64	54	1.4	2.75	2.91	-0.16	2.52	3.23	-0.71	41	38	64	2048	0	0	.	-37	-51	-76	-16	4
78	SDIEGO	4764	213	4.5	70	70	1.5	2.67	3.12	-0.45	2.62	3.22	-0.60	54	47	38	1513	0	0	.	15	41	22	9	32

OBS	PDUTR	DSTR	PDSTR	DMUT	PDMUT	DMST	PDPST	DFT	PDFT	DIFT	PDIFT	EFID	EFWK	EFC	CFFT	SFTR	UFTR	STRX	STRXP	STRXSG	STRXCG
53	.	2	4	.	.	0	0	-22	-5	57	13	0	1	0	105	51.4	2.9	4	3	2.97	1.96
54	33	-2	-1	-3	-75	1	2	-610	-20	267	11	1	1	0	806	30.4	2.6	24	18	2.61	2.71
55	6	19	12	-7	-41	4	6	35	1	91	4	0	0	1	506	37.0	8.9	24	15	2.21	2.64
56	74	-4	-1	-1	-33	-3	-27	.	.	-53	-3	0	0	0	309	21.7	11.8	8	6	2.08	2.61
57	-25	45	78	-4	-80	-6	-46	.	.	667	84	.	.	0	218	39.0	3.2	7	4	2.21	3.02
58	21	21	5	2	100	-11	-27	-972	-23	273	8	0	0	1	788	53.7	5.2	23	14	2.41	2.50
59	32	4	2	6	200	10	32	-958	-31	-319	-15	0	1	0	360	48.6	17.5	9	7	2.91	2.84
60	35	42	16	-2	-50	10	50	-1485	-36	357	14	1	1	1	1031	28.2	5.7	10	8	2.07	2.69
61	20	88	18	6	120	8	6	-889	-14	711	13	0	1	0	1597	35.5	2.2	91	63	2.45	2.62
62	-32	15	42	2	100	1	25	-47	-7	109	16	0	1	0	200	21.5	5.5	3	0	.	.
63	44	17	11	14	200	-4	-40	-386	-19	.	.	0	0	0	715	20.8	4.9	7	6	2.37	2.76
64	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
65	50	15	6	4	133	7	19	-561	-23	351	19	0	1	0	610	38.9	4.5	23	20	2.30	2.58
66	13	31	3	1	10	13	27	-1058	-14	1283	20	0	1	0	2028	45.1	10.6	34	22	2.43	2.83
67	375	3	9	11	1100	-9	-29	168	19	98	9	.	.	0	246	15.9	5.7	5	2	1.81	2.48
68	.	-1	-20	.	.	1	.	-74	-33	7	5	0	1	0	52	.	3.8	.	.	.	.
69	33	16	4	8	160	-2	-6	-1196	-22	353	8	1	1	0	1117	29.7	6.3	13	9	2.65	2.81
70	-12	87	14	-1	-4	8	6	-1540	-21	322	6	0	0	0	1165	53.0	10.4	78	85	2.49	2.56
71	-233	11	16	2	.	-1	-7	-352	-42	-129	-15	0	0	1	235	28.8	2.6	15	9	2.19	2.81
72	8	33	17	0	0	-2	-33	-676	-26	532	28	0	0	0	.	.	.	30	16	2.81	2.88
73	-13	-75	-27	3	100	-9	-10	-2231	-44	-7	0	0	0	0	812	31.8	2.2	33	24	2.69	2.80
74	21	32	10	5	28	-3	-4	-1609	-33	408	13	1	1	0	879	38.3	11.7	27	19	2.19	2.40
75	6	-49	-8	0	0	53	65	-1952	-29	396	8	0	1	1	1194	47.3	10.1	41	27	2.69	2.60
76	21	136	36	-4	-27	0	0	595	17	520	12	.	.	0	1038	42.9	10.0	29	23	2.25	2.72
77	11	-44	-11	10	143	15	20	-1958	-35	55	1	0	1	1	902	40.2	6.0	33	26	2.61	2.43
78	62	39	17	10	100	29	44	-1484	-53	3445	261	0	0	0	574	37.1	12.2	27	17	2.22	2.95

OBS	C	CFT	ST	STP	SPR	UT	UTP	SG	SCG	SGD	UG	UCG	UGD	MN	MNA	PRG	CE	SLC	ULC	EFF	DUT	PDUT	DST	PDST	DUTR
79	SDMESA	6997	567	8.4	73	89	1.3	2.58	2.95	-0.37	2.78	3.23	-0.45	23	17	53	1513	0	0	.	-31	-24	-144	-20	-6
80	SDMIRA	832	20	2.4	55	5	0.6	2.66	3.29	-0.62	3.04	3.27	-0.23	30	23	46	1513	0	0	.	1	.	22	169	1
81	SNFRAN	7855	803	10.2	75	101	1.3	2.74	2.87	-0.13	3.02	3.42	-0.40	61	35	.	2129	0	0	.	94	50	-152	-17	23
82	SNJCAQ	4882	539	11.0	78	90	1.8	2.70	3.00	-0.30	2.73	3.29	-0.56	33	29	49	2047	1	2	.	-14	-17	-33	-6	15
83	SNJOSE	3352	228	6.8	71	16	0.5	2.82	2.86	-0.04	2.74	3.12	-0.38	26	17	41	2309	0	2	.	-14	-74	-148	-38	9
84	SMATEO	4534	524	11.6	78	99	2.2	2.74	2.81	-0.07	2.79	3.05	-0.26	22	14	51	2245	1	1	.	-29	-22	-48	-15	5
85	SNTANA	3758	340	9.0	75	30	0.8	2.70	2.93	-0.23	2.80	3.30	-0.50	46	39	31	1931	0	0	.	-21	-32	-110	-26	7
86	SBARBA	3490	218	6.2	77	210	6.0	2.83	2.88	-0.05	2.80	3.13	-0.33	18	15	.	1718	2	0	.	-108	-36	-6	-3	87
87	SMONCA	4602	419	9.1	72	211	4.6	2.74	2.86	-0.12	2.81	3.19	-0.37	28	20	65	1775	0	0	.	-98	-30	-44	-9	-11
88	STRCSA	5195	556	10.7	75	81	1.6	2.97	2.83	-0.14	3.08	3.06	-0.02	15	13	55	1869	0	1	.	14	19	7	1	-12
89	SEQUOI	2982	310	10.4	77	34	1.1	2.78	2.99	-0.21	3.04	3.43	-0.39	30	26	53	2355	1	2	.	18	60	-21	-6	-21
90	SHASTA	2977	252	8.5	75	29	1.0	2.73	3.10	-0.37	2.90	3.52	-0.62	8	7	47	1968	1	2	.	-9	-28	20	8	7
91	SIERRA	2969	310	10.4	75	31	1.0	2.79	3.00	-0.21	2.76	3.31	-0.55	9	8	.	2075	1	1	.	-22	-43	-70	-22	13
92	SISKIY	628	69	11.0	68	6	1.0	2.60	2.99	-0.39	2.62	3.47	-0.85	12	10	55	2933	1	2	.	-4	-50	24	41	3
93	SKYLNE	1836	193	10.5	76	18	1.0	2.68	2.94	-0.26	2.66	3.18	-0.52	38	28	52	2245	0	1	.	1	5	-26	-11	1
94	SOLANO	2231	153	6.9	74	34	1.5	2.86	2.92	-0.06	2.47	3.13	-0.66	35	31	53	1872	1	1	.	-8	-16	-28	-13	-4
95	SOUTHW	4064	245	6.0	71	23	0.6	2.46	2.98	-0.52	3.08	3.43	-0.35	50	47	59	1280	0	0	.	-29	-47	-110	-30	-3
96	TAFTCO	288	23	8.0	70	2	0.7	2.30	3.07	-0.77	2.56	3.29	-0.73	12	11	.	7729	0	1	.	0	0	14	54	-1
97	VENTUR	3622	280	7.7	69	127	3.5	2.65	2.99	-0.34	3.24	2.71	-0.53	29	27	63	1966	0	1	.	-15	-12	-65	-19	21
98	VICTOR	1171	74	6.3	70	7	0.6	2.85	3.04	-0.19	2.78	2.92	-0.14	21	19	44	2210	1	1	.	-4	-40	-5	-6	1
99	VISTAC	178	7	3.9	43	0	0.0	3.35	3.52	-0.17	.	.	.	37	30	26	1902	0	0	.	1	100	.	.	2
100	WSHILL	560	65	11.6	78	.	.	2.68	2.98	-0.30	.	.	.	36	34	40	3149	1	2	.	-5	-83	-16	-23	0
101	WESTLA	1771	199	11.2	76	30	1.7	2.68	2.77	-0.09	2.75	3.37	-0.62	66	59	48	2656	0	0	.	-15	-28	7	3	-2
102	WSVALL	4530	675	14.9	74	89	2.0	2.76	2.95	-0.19	2.65	3.24	-0.59	18	11	50	1908	1	1	.	-39	-27	-43	-6	2
103	YUBACO	2608	239	9.2	74	16	0.6	2.73	2.97	-0.24	2.68	3.28	-0.60	23	21	40	1937	1	1	.	-5	-17	-12	-5	2

OBS	PDUTR	DSTR	PDSTR	DMUT	PDMUT	DMST	PDMST	DFT	PDFT	DIFT	PDIFT	EFID	EFWK	EFC	EFFT	SFTR	UFTR	STRX	STRXP	STRXSG	STRXCG
79	-8	55	9	-6	-32	17	25	-2689	-49	4247	154	.	.	0	.	.	.	41	25	2.20	2.59
80	300	3	9	.	.	6	200	108	32	391	87	1	0	0	44	45.5	11.4	0	0	.	.
81	24	43	5	15	300	21	12	-1120	-12	-477	-6	0	0	1	1896	42.4	5.3	85	61	2.59	2.42
82	22	-7	-1	0	0	50	93	-819	-14	50	1	1	0	0	773	69.7	11.6	30	19	2.36	2.63
83	180	-20	-8	3	300	16	31	-1135	-27	265	9	0	0	1	906	25.2	1.8	29	14	2.40	2.52
84	5	33	6	0	0	12	24	-642	-12	-4	0	.	.	1	.	.	.	46	34	2.45	2.48
85	16	48	16	3	75	10	24	-1844	-37	552	17	0	0	1	736	44.2	4.1	18	13	2.33	2.52
86	45	-18	-8	8	40	9	38	-1396	-31	348	11	0	0	0	961	22.7	21.9	20	13	2.68	2.73
87	-5	-50	-11	-2	-10	9	11	-965	-18	244	6	.	.	0	1043	40.2	20.2	36	21	2.46	2.35
88	-13	-11	-2	-3	-50	12	44	-1047	-19	644	14	1	1	0	1244	44.7	6.5	34	24	2.54	2.38
89	-44	-5	-2	-7	-88	-9	-13	-170	-6	224	8	0	1	0	1099	23.2	3.1	37	27	2.46	2.70
90	30	6	2	-1	-100	-2	-11	-627	-20	390	15	.	.	0	986	25.6	2.9	4	3	2.69	3.07
91	45	101	40	-1	-33	1	11	-434	-15	405	19	0	0	0	882	35.1	3.5	17	12	2.46	2.56
92	75	-18	-22	.	.	-4	-44	-103	-14	-16	-2	1	0	0	231	29.9	2.6	4	3	2.39	2.23
93	5	-51	-24	3	60	0	0	-410	-15	10	1	.	.	1	.	.	.	19	13	2.59	2.47
94	-9	-28	-14	-4	-31	10	48	-879	-27	-128	-5	0	1	0	586	26.1	5.8	7	5	2.52	2.71
95	-9	-6	-2	0	0	17	20	-947	-21	489	14	0	1	0	998	24.5	2.3	10	8	2.01	2.28
96	-50	-16	-40	-1	-100	0	0	67	26	-34	-11	0	0	0	126	18.3	1.6	3	1	2.95	2.92
97	19	24	9	5	19	19	46	-1059	-22	-53	-1	0	0	1	1077	26.0	11.8	21	15	2.43	2.63
98	17	10	13	1	.	-4	-31	-320	-30	427	57	0	0	1	200	37.0	3.5	4	4	2.35	2.10
99	100	1	11	0	0	0	0	.	.	110	162	0	0	0	28	25.0	0.1	0	0	.	.
100	0	-8	-15	1	.	-1	-10	-153	-20	-50	-8	0	1	0	229	28.4	.	5	3	2.75	3.09
101	-5	-60	-27	2	17	-28	-24	-20	-1	-464	-21	.	.	0	549	36.2	5.5	36	19	2.35	2.42
102	2	-90	-13	-3	-30	0	0	.	.	252	6	0	0	0	1100	61.4	8.1	49	36	2.43	2.78
103	8	-29	-11	1	100	13	52	-659	-21	196	8	0	1	0	558	42.8	2.9	9	5	2.65	2.15

APPENDIX E

TABLE 1

ETHNIC DISTRIBUTION OF COMMUNITY COLLEGE TRANSFER STUDENTS
TO UNIVERSITY OF CALIFORNIA AND CALIFORNIA STATE UNIVERSITY

	AMERICAN INDIAN	ASIAN	FILIPINO	BLACK	CHICANO	WHITE	TOTAL
UC							
1982	36	570	67	195	426	3,843	5,137
1983	48	637	53	223	482	3,872	5,305
% CHANGE	+33.0%	+11.8%	-20.9%	+14.4%	+10.8%	+0.8%	+3.3%
CSU							
1982	418	2,535	418	1,760	2,714	21,980	29,824
1983	272	2,815	454	1,998	2,937	21,797	30,274
% CHANGE	-34.9%	+11.0%	+8.6%	+13.5%	+8.2%	-0.8%	+1.5%
TOTAL							
1982	454	3,105	485	1,955	3,140	25,823	34,961
1983	320	3,452	507	2,221	3,409	25,669	35,579
# CHANGE	-134	+ 347	+22	+ 266	+ 269	- 154	+ 618
% CHANGE	-29.5%	+11.2%	+4.5%	+13.6%	+8.6%	-0.6%	+1.8%

SOURCE: California Postsecondary Education Commission, California Community College - Going Rates 1982 Update, March 1984.

TABLE 2

COMMUNITY COLLEGE ENROLLMENTS
ETHNIC GROUP DISTRIBUTION
(PERCENT OF TOTAL ENROLLMENT)

YEAR	AMER IND.	ASIAN/ PAC. ISL.	BLACK	WHITE	HISPANIC	FILIPINO	OTHER
1983	1.5	9.1	9.7	62.9	12.9	2.1	1.8
1982	1.6	7.4	9.2	64.5	12.7	1.9	2.8
1981	1.6	6.2	9.7	66.8	12.5	1.6	2.6
1980	1.5	5.5	9.6	68.9	11.4	1.4	2.7
1979	1.4	5.0	9.1	69.1	11.0	1.4	3.0
1978	1.4	4.2	9.7	69.4	11.3	1.0	3.0
1977	1.5	3.6	11.1	69.2	10.4	0.7	3.5

SOURCE: Chancellor's Office Information System, Fall 1983.
NOTE: Row totals = 100%

COMMUNITY COLLEGE ENROLLMENT
ETHNICITY OF FULL-TIME
STUDENTS
1981

ETHNICITY	1981	% OF TOTAL
AMERICAN INDIAN	4,251	1.6
ASIAN/PACIFIC ISLANDER	23,953	8.9
BLACK	28,562	10.6
WHITE	163,428	60.8
HISPANIC	35,940	13.4
FILIPINO	4,652	1.7
OTHER	8,217	3.0
NO RESPONSE	21,003	

SOURCE: Chancellor's Office Information System, Fall 1981

TABLE 3

PERCENT ETHNIC DISTRIBUTION OF 1981 GRADUATES OF PUBLIC CALIFORNIA HIGH SCHOOLS, 1981 AND 1982 FIRST-TIME FRESHMEN IN THE UC, CSU AND COMMUNITY COLLEGES BY SEX

		TOTAL	AMER IND.	ASIAN	BLACK	FILIPINO	HISPANIC	WHITE
HIGH SCHOOL GRADS								
1981	MALE	117,034	0.8	5.2	7.8	1.3	15.7	69.2
	FEMALE	121,262	0.7	4.9	8.6	1.3	15.7	68.8
UC FIRST TIME FRESHMEN								
1982	MALE	8,008	0.4	17.3	3.6	3.2	7.1	68.2
	FEMALE	8,889	0.4	16.2	5.9	3.4	6.3	67.8
CSU FIRST TIME FRESHMEN								
1982	MALE	10,675	0.8	10.9	5.4	2.6	11.0	69.3
	FEMALE	13,324	0.8	9.5	8.9	2.5	11.1	67.2
CCC FIRST TIME FRESHMEN								
1982	MALE	47,207	1.6	4.7	10.9	1.7	16.0	65.1
	FEMALE	48,916	1.5	4.0	11.5	1.8	16.0	65.2

SOURCE: California Postsecondary Education Commission, College-Going Rates, 1982 Update, p.44.

TABLE 4

GOALS OF 1983 FULL-TIME COMMUNITY COLLEGE STUDENTS
BY ETHNICITY AND AGE

ETHNIC/AGE	STUDENT GOAL		
	TRANSFER	OCCUPATIONAL	OTHER/UNKNOWN
AMER. INDIAN			
17-19	55.4	24.5	20.1
20-24	48.6	31.0	20.4
25+	38.2	40.5	21.3
ASIAN/PACISL			
17-19	58.1	15.2	26.7
20-24	47.7	21.8	30.5
25+	23.0	46.3	30.7
BLACK			
17-19	58.0	21.3	20.7
20-24	50.1	27.4	22.5
25+	37.9	36.8	25.3
WHITE			
17-19	58.3	21.1	20.6
20-24	51.8	26.3	21.9
25+	37.9	37.6	24.5
HISPANIC			
17-19	49.9	26.4	23.7
20-24	46.2	29.8	24.0
25+	33.5	39.4	27.1
FILIPINO			
17-19	56.8	16.4	26.8
20-24	47.6	21.3	31.1
25+	30.2	38.6	31.2
OTHER			
17-19	55.1	18.9	26.0
20-24	45.3	23.9	30.8
25+	58.0	10.4	31.6

SOURCE: Chancellor's Office Information System, Fall 1983.

TABLE 5

GOALS OF 1983 PART-TIME CREDIT COMMUNITY COLLEGE STUDENTS
BY ETHNICITY AND AGE

ETHNIC/AGE	STUDENT GOAL		
	TRANSFER	OCCUPATIONAL	OTHER/UNKNOWN
AMER. INDIAN			
17-19	35.4	33.6	31.0
20-24	32.6	38.4	29.0
25+	22.3	42.8	34.9
ASIAN/PACISL			
17-19	46.6	20.5	32.9
20-24	37.5	26.2	36.3
25+	20.7	35.1	44.2
BLACK			
17-19	45.8	27.5	26.7
20-24	37.5	33.1	29.4
25+	27.3	38.8	33.9
WHITE			
17-19	40.3	29.1	30.6
20-24	34.8	33.9	31.3
25+	21.5	37.4	41.1
HISPANIC			
17-19	34.5	34.9	30.6
20-24	30.7	38.0	31.3
25+	21.1	37.8	41.1
FILIPINO			
17-19	44.1	23.1	32.8
20-24	33.9	29.6	36.5
25+	19.5	42.1	38.4
OTHER			
17-19	38.3	36.0	35.7
20-24	32.5	30.6	36.9
25+	21.9	36.5	42.6

SOURCE: Chancellor's Office Information System, Fall 1983.

APPENDIX F

TABLE 1

MEAN GRADE-POINT AVERAGES EARNED BY COMMUNITY COLLEGE TRANSFER STUDENTS BEFORE AND DURING THE FIRST YEAR AFTER TRANSFER TO THE UNIVERSITY (1975-76 AND 1978-79)

CAMPUS*	YEAR	MEAN ENTERING GPA		MEAN UNIVERSITY GPA		MEAN DIFFERENTIAL	
		ELIGIBLE	INELIGIBLE	ELIGIBLE	INELIGIBLE	ELIGIBLE	INELIGIBLE
Berkeley	1975	3.37	3.16	2.89	2.68	-.48	-.48
	1978	3.42	3.35	2.91	2.83	-.51	-.52
Davis	1975	3.33	3.06	2.85	2.54	-.48	-.52
	1978	3.34	3.19	2.84	2.72	-.50	-.47
Irvine	1975	3.28	3.07	2.84	2.71	-.44	-.36
	1978	3.[illegible]	3.22	2.94	2.74	-.35	-.48
Los Angeles	1975	3.33	2.92	2.84	2.49	-.49	-.43
	1978	3.41	3.19	2.86	2.70	-.55	-.49
Riverside	1975	3.30	3.00	3.02	2.78	-.28	-.22
	1978	3.28	3.21	2.76	2.74	-.52	-.47
Santa Barbara	1975	3.26	2.97	2.95	2.66	-.31	-.31
	1978	3.20	3.13	2.82	2.74	-.37	-.39
Total	1975	3.32	3.01	2.88	2.62	-.44	-.39
	1978	3.34	3.23	2.86	2.76	-.48	-.47

SOURCE: Report on the Implementation of a Plan for Obtaining Community College Transfer Information, CPEC 1981, p. 27.

* Data for the Santa Cruz campus are not included in the table since University grade point averages are not available for students at that campus.

TABLE 2A

UNIVERSITY OF CALIFORNIA FIRST YEAR PERFORMANCE
FOR UNDERGRADUATES ENTERING FALL 1982
STATEWIDE SUMMARY FOR
CALIFORNIA COMMUNITY COLLEGES

	TOTAL	SPECIAL	%SUBJ A NOT MET	---GRADE POINT AVG-- CC	UC	DIFF.	-COURSES COMPLETED- --FOR LETTER GRADE-- AVG UNITS COMP.	BELOW C %	B OR ABOVE %
BERKELEY	811	90	5.7	3.36	2.86	.50	35.5	10.2	43.0
DAVIS	675	89	4.1	3.27	2.81	.46	34.6	12.8	38.9
IRVINE	489	78	6.3	3.24	2.78	.46	35.0	13.1	39.7
LOS ANGELES	997	135	19.7	3.19	2.67	.52	31.8	17.1	29.5
RIVERSIDE	340	43	7.1	3.22	2.73	.49	34.9	14.6	29.8
SAN DIEGO	415	58	13.9	3.24	2.84	.40	29.4	13.3	45.1
SANTA BARBARA	952	212	4.7	3.17	2.75	.42	35.1	10.1	35.6
SANTA CRUZ	366	45	10.3	3.22	.00	.00	.0	.0	.0
TOTAL	4,945	750	9.4	3.243	2.776	.468	33.8	12.9	37.2

SOURCE: University of California, Office of the Academic Vice President, June, 1984.
* GPA are computed only for students who persisted to Fall 1983.

TABLE 2B

COMPARISON OF THE 1982-83 ACADEMIC PERFORMANCE OF REGULARLY
ADMITTED FALL 1982 COMMUNITY COLLEGE TRANSFER STUDENTS
WITH COHORTS WHO TRANSFERRED FROM FOUR-YEAR INSTITUTIONS
AND NATIVE FRESHMEN WHO BECAME JUNIORS FALL 1982

	NATIVE FRESHMEN WHO BECAME JUNIORS	TRANSFERS FROM 4-YEAR COLLEGES	COMMUNITY COLLEGE TRANSFERS: ELIGIBLE FROM HIGH SCHOOL	COMMUNITY COLLEGE TRANSFERS: INELIGIBLE FROM HIGH SCHOOL
LOWER DIVISION GRADES	3.03	3.11	3.32	3.18
FIRST YEAR UPPER DIVISION GRADES	2.96	2.69	2.92	2.67

SOURCE: University of California, Office of the President, Admissions and Outreach files, August 1984.

TABLE 3

COMPARISON OF TRANSFER GPA
WITH FIRST YEAR UC DAVIS GPA
(FOR STUDENTS COMPLETING FIRST THREE QUARTERS)

FALL QUARTER OF ENTRY	TRANSFER GPA N	MEAN	UCD GPA N	MEAN	SD	DIFFERENTIAL (UCD-TRANS)
Community College Transfers - Juniors						
1973	793	3.076	806	2.716	.593	(-.360)
1974	729	3.159	739	2.692	.649	(-.467)
1975	775	3.177	779	2.691	.627	(-.486)
State College Transfers - Juniors						
1973	89	2.990	91	2.809	.547	(-.181)
1974	88	3.072	88	2.810	.603	(-.262)
1975	83	3.081	83	2.842	.550	(-.239)
UC Campus Transfers - Juniors						
1973	91	3.011	94	3.080	.511	+.069
1974	67	3.081	74	2.973	.563	(-.108)
1975	87	3.005	95	3.018	.552	+.013
1976	61	3.079	64	Not Available		

SOURCE: University of California, Davis, Office for Student Affairs, 1977.

TABLE 4

FIRST-YEAR GPA
UC BERKELEY

	YEAR	CC	CSU	UC	PVT.	OVERALL
SOPHOMORES	1980	2.89	2.96	2.99	2.98	2.93
	1981	2.81	2.94	3.00	3.03	2.89
	1982	2.87	3.09	3.00	3.06	2.96
JUNIORS	1980	2.96	2.96	3.18	2.97	3.00
	1981	2.91	2.96	3.14	3.13	2.98
	1981	2.88	3.06	3.03	3.08	2.95

SOURCE: Office of Student Research, UC Berkeley, February 23, 1984

TABLE 4A

UC BERKELEY
SELECTED CHARACTERISTICS AT ENTRANCE FOR
SOPHOMORE AND JUNIOR TRANSFERS
FALL 1980, 1981, 1982, 1983

	Percentage For Each Source Type			
	CCC	CSUC	UC	PVT.
Special Action				
Sophomores				
1980	11%	4%	2%	11%
1981	21	16	1	0
1982	20	11	1	6
1983	23	21	0	12
Juniors				
1980	2	3	0	0
1981	1	0	0	0
1982	2	0	1	0
1983	1	3	0	0
EOP				
Sophomores				
1980	13%	8%	5%	7%
1981	13	8	2	11
1982	13	5	4	3
1983	13	10	3	6
Juniors				
1980	10%	4%	1%	0%
1981	11	0	2	4
1982	10	9	3	0
1983	13	6	3	7

SOURCE: Office of Student Research, UC Berkeley, February 23, 1984.

TABLE 4B

UC BERKELEY
SELECTED CHARACTERISTICS AT ENTRANCE FOR
SOPHOMORE AND JUNIOR TRANSFERS
FALL 1980, 1981, 1982 AND 1983

	Percentage For Each Source Type				
	CCC	CSUC	UC	PVT.	
Ineligible from High School					
Sophomores					
1980	74%	74%	9%	65%	
1981	73	65	9	46	
1982	74	60	7	42	
1983	75	66	7	53	
Juniors					
1980	75%	63%	3%	40%	
1981	76	67	12	48	
1982	77	63	9	52	
1983	77	55	4	40	
GPA at Entrance					All Sources
Sophomores					
1980	3.31	3.25	3.04	3.22	3.25
1981	3.23	3.22	3.09	3.19	3.19
1982	3.29	3.27	3.06	3.14	3.21
1983	3.26	3.30	3.03	3.14	3.20
Juniors					
1980	3.39	3.29	3.26	3.38	3.35
1981	3.38	3.29	3.30	3.37	3.35
1982	3.30	3.32	3.16	3.32	3.28
1983	3.43	3.28	3.24	3.17	3.35

SOURCE: Office of Student Research, UC Berkeley, February 1984.

TABLE 5

COMPARISON OF ACADEMIC PERFORMANCE OF COMMUNITY COLLEGE TRANSFERS WHO SURVIVED FIRST-QUARTER TRANSFER SHOCK WITH NATIVE FRESHMEN WHO BECAME JUNIORS IN 1975

	NATIVE FRESHMEN WHO BECAME JUNIORS	COMMUNITY COLLEGE TRANSFERS	
		ELIGIBLE FROM HIGH SCHOOL	INELIGIBLE FROM HIGH SCHOOL
LOWER DIVISION GRADES	3.03	3.28	3.02
FIRST YEAR UPPER DIVISION GRADES	3.10	2.90	2.61
SECOND YEAR GRADES	3.2	3.12	2.97
FIRST AND SECOND YEAR UPPER DIVISION GRADES	3.15	3.01	2.79
% GRADUATING BY SPRING 1978	74%	71%	56%
N =			

Derived from data compiled in Retention annd Transfer Report, 1980. Irvine, Los Angeles, Riverside, San Diego and Santa Cruz campuses.

TABLE 6

GRADUATION RATES OF JUNIOR TRANSFERS
TO UC DAVIS IN 1975

	GRADUATED WITHIN	
	2 YEARS	3 YEARS
All Regularly Admitted	39%	67%
SAA	30	55
Non-SAA	40	68
Community College Transfer	37	66
Other School Transfer	45	71
All Special Action	35%	56%

SOURCE: Report of the UC Davis Task Force on Retention and Transfer, Executive Summary, 1980 p. 9.

TABLE 7

GRADUATION RATES OF FRESHMEN ENTERING
UC DAVIS IN 1975

	GRADUATED WITHIN	
	4 YEARS	5 YEARS
All Regularly Admitted	36%	60%
SAA	23	41
Non-SAA	37	61
All Special Action	9%	22%
SAA	10	22
Non-SAA	8	23

SOURCE: Report of the UC Davis Task Force on Retention and Transfer, Executive Summary, 1980 p. 9.

TABLE 8

UNIVERSITY OF CALIFORNIA
GRADUATION RATES
(REGULARLY ADMITTED JUNIORS TRANSFERRING
FROM COMMUNITY COLLEGES FALL 1972 - FALL 1975)

CAMPUS	PERCENT GRADUATED IN 3 YEARS* BY ENTERING YEAR			
	1972	1973	1974	1975
Davis	72	69	63	65
Berkeley	69	67	65	65
Irvine	66	59	61	55
Los Angeles	64	58	56	56
Riverside	67	62	65	64
Santa Barbara		Not Available		
Santa Cruz	61	61	53	48
San Diego	49	51	46	46

SOURCE: Report on the UC Davis Task Force on Retention and Transfer, Executive Summary, 1980 p. 23.

* Includes students who graduated after the Summer Session following the end of the third elapsed academic year.

TABLE 9

UNIVERSITY OF CALIFORNIA GRADUATION RATES
(ALL REGULARLY ADMITTED JUNIORS
TRANSFERRING FALL 1972-FALL 1975)

CAMPUS	PERCENT GRADUATED IN 3 YEARS* BY ENTERING YEAR			
	1972	1973	1974	1975
Davis	72	71	65	66
Berkeley	74	70	68	68
Irvine	67	61	59	55
Los Angeles	68	61	61	62
Riverside	67	64	67	66
Santa Barbara		Not Available		
Santa Cruz	65	65	58	53
San Diego	53	55	52	52

SOURCE: Report on the UC Davis Task Force on Retention and Transfer, Executive Summary, 1980 p. 23.

* Includes students who graduated after the Summer Session following the end of the third elapsed academic year.

TABLE 10
UNIVERSITY OF CALIFORNIA
ONE YEAR ATTRITION RATES
(REGULARLY ADMITTED JUNIORS TRANSFERRING
FALL 1973 & FALL 1975)

CAMPUS & ENTERING YEAR	LEFT IN GOOD STANDING	LEFT IN ACADEMIC DIFFICULTY[1/]	TOTAL NOT ENROLLED
PERCENT NOT ENROLLED FOUR QUARTERS AFTER ENTRY BY ACADEMIC STANDING			
Davis			
1973	14	7	21
1975	16	9	25
Berkeley			
1973	13	8	21
1975	12	8	20
Irvine			
1973	18	11	29
1975	19	12	31
Los Angeles			
1973	13	11	24
1975	11	15	26
Riverside			
1973	20	8	28
1975	16	8	24
Santa Barbara		Not Available	
Santa Cruz			
1973	23	6	29
1975	20	9	29
San Diego			
1973	24	9	33
1975	17	9	36

SOURCE: Report of the UC Davis Task Force on Retention annd Transfer, Executive Summary, 1980 p. 26.

1/ The following definitions of academic difficulty were used:
Berkeley - cumulative GPA below 2.0.
Davis - cumulative and/or last quarter GPA below 2.0.
All other campuses - cumulative GPA below 2.0 or on probation any time during the last three quarters.

TABLE 11

FIRST-YEAR PERSISTENCE AND PERFORMANCE OF SOPHOMORE AND JUNIOR TRANSFERS AT UC BERKELEY BY SOURCE TYPE (FOURTH QUARTER PERSISTENCE RATES)

		CC		CSUC		UC		PVT		OVERALL		
	YEAR	#	%	#	%	#	%	#	%	#	%	TOTALS
Sophomores	1980	350	77%	89	83%	124	79%	37	82%	603	79%	764
	1981	280	80	73	88	136	92	71	55	508	83	611
	1982	241	82	67	80	166	77	29	83	511	80	639
Juniors	1980	426	80	97	82	134	87	36	75	698	81	860
	1981	362	86	59	88	106	84	40	77	570	85	669
	1982	383	82	73	94	104	87	25	93	648	85	764

SOURCE: Office of Student Research, UC Berkeley, February 23, 1984.

TABLE 12

COMMUNITY COLLEGE TRANSFER TO CSU FIRST-YEAR PERFORMANCE

				GPA			
ADMISSION TYPE	FALL 1982	CONTD. FALL 1983	CHANGE	ALL CC TRANSF	ALL TRANSF	ALL NATIVE	ALL STUDENTS
Regular Admits	27,354	19,886	-.224	2.70	2.72	2.66	2.69
Exceptional Admits	2,375	1,590	-.180				

SOURCE: Office of the Chancellor, The California State University Educational Support Services "Student Performance Report," Fall 1983.

TABLE 13

COMPARISON OF TRACKING RATES OF "NATIVE" AND "TRANSFER" STUDENTS

	ENROLLED FALL 1975	TRACKING RATE 1979-80		
		ENROLLED AS UNDERGRAD	EARNED DEGREE	TOTAL
NATIVE STUDENTS*				
Male	6,074	.098	.654	.753
Female	7,016	.072	.699	.769
Total	13,090	.083	.678	.761
TRANSFERS**				
Male	3,070	.036	.626	.663
Female	3,043	.031	.595	.626
Total	6,113	.034	.611	.644

SOURCE: Office of the Chancellor, The California State University, Those Who Stay - Phase IV, 1983, p. 22

* Fall 1973 first-time freshmen in attendance Fall 1975.

** Fall 1975 CCC transfers who graduated from high school in 1973.

The data in Table 13 compares students who entered CSU as freshmen in 1973 and were still enrolled in 1975 with students who entered community college as freshmen in 1973 and transferred to CSU in 1975. As of 1979/80, 76% of these native students had earned a degree or were still enrolled compared to 64% of the transfers.

TABLE 14

CONTINUATION RATES AND GRADUATION RATES FOR SUCCESSIVE
FALL 1975 TERMS, LOWER DIVISION
REGULAR ADMITS (11,033)

	1976	1977	1978	1979	1980
ENROLLED:					
Undergraduate	.703	.507	.247	.120	.063
Post-Baccalaureate	.001	.027	.050	.050	.046
Total	.704	.534	.296	.170	.109
EARNING DEGREE:					
Bachelor's Only	.001	.071	.270	.387	.438
Bachelor's & Masters	.000	.000	.001	.004	.009
Total	.001	.071	.271	.391	.447
TOTAL TRACKED	.704	.578	.518	.511	.510

SOURCE: Office of the Chancellor, The California State University, Those Who Stay - Phase IV, 1983, p. 6.

TABLE 15

CONTINUATION RATES AND GRADUATION RATES FOR SUCCESSIVE
FALL 1975 TERMS, LOWER DIVISION
EXCEPTIONAL ADMITS (3,015)

	1976	1977	1978	1979	1980
ENROLLED:					
Undergraduate	.619	.441	.246	.137	.077
Post-Baccalaureate	.000	.011	.030	.036	.031
Total	.619	.452	.276	.172	.108
EARNING DEGREE:					
Bachelor's Only	.000	.021	.119	.197	.244
Bachelor's & Masters	.000	.000	.000	.002	.005
Total	.000	.021	.119	.199	.249
TOTAL TRACKED	.619	.462	.365	.335	.326

SOURCE: Office of the Chancellor, The California State University, Those Who Stay - Phase IV, 1983, p. 7.

TABLE 16

CONTINUATION RATES AND GRADUATION RATES FOR SUCCESSIVE FALL 1975 TERMS, UPPER DIVISION REGULAR ADMITS (20,804)

	1976	1977	1978	1979	1980
ENROLLED:					
Undergraduate	.716	.419	.161	.079	.046
Post-Baccalaureate	.004	.055	.074	.062	.051
Total	.720	.475	.235	.141	.097
EARNING DEGREE:					
Bachelor's Only	.006	.184	.410	.487	.517
Bachelor's & Masters	.000	.000	.001	.006	.014
Total	.006	.184	.411	.493	.531
TOTAL TRACKED	.722	.604	.572	.572	.577

SOURCE: Office of the Chancellor, The California State University, Those Who Stay - Phase IV, 1983, p. 8.

TABLE 17

CONTINUATION RATES AND GRADUATION RATES FOR SUCCESSIVE FALL 1975 TERMS, UPPER DIVISION EXCEPTIONAL ADMITS (675)

	1976	1977	1978	1979	1980
ENROLLED:					
Undergraduate	.604	.363	.129	.083	.053
Post-Baccalaureate	.003	.018	.047	.037	.018
Total	.607	.381	.176	.120	.072
EARNING DEGREE:					
Bachelor's Only	.009	.114	.250	.295	.321
Bachelor's & Masters	.000	.000	.001	.004	.007
Total	.009	.114	.252	.299	.329
TOTAL TRACKED	.613	.477	.381	.382	.382

SOURCE: Office of the Chancellor, The California State University, Those Who Stay - Phase IV, 1983, p. 9.

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